

Eph. astr. 37# 8

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PUBLICATIONS

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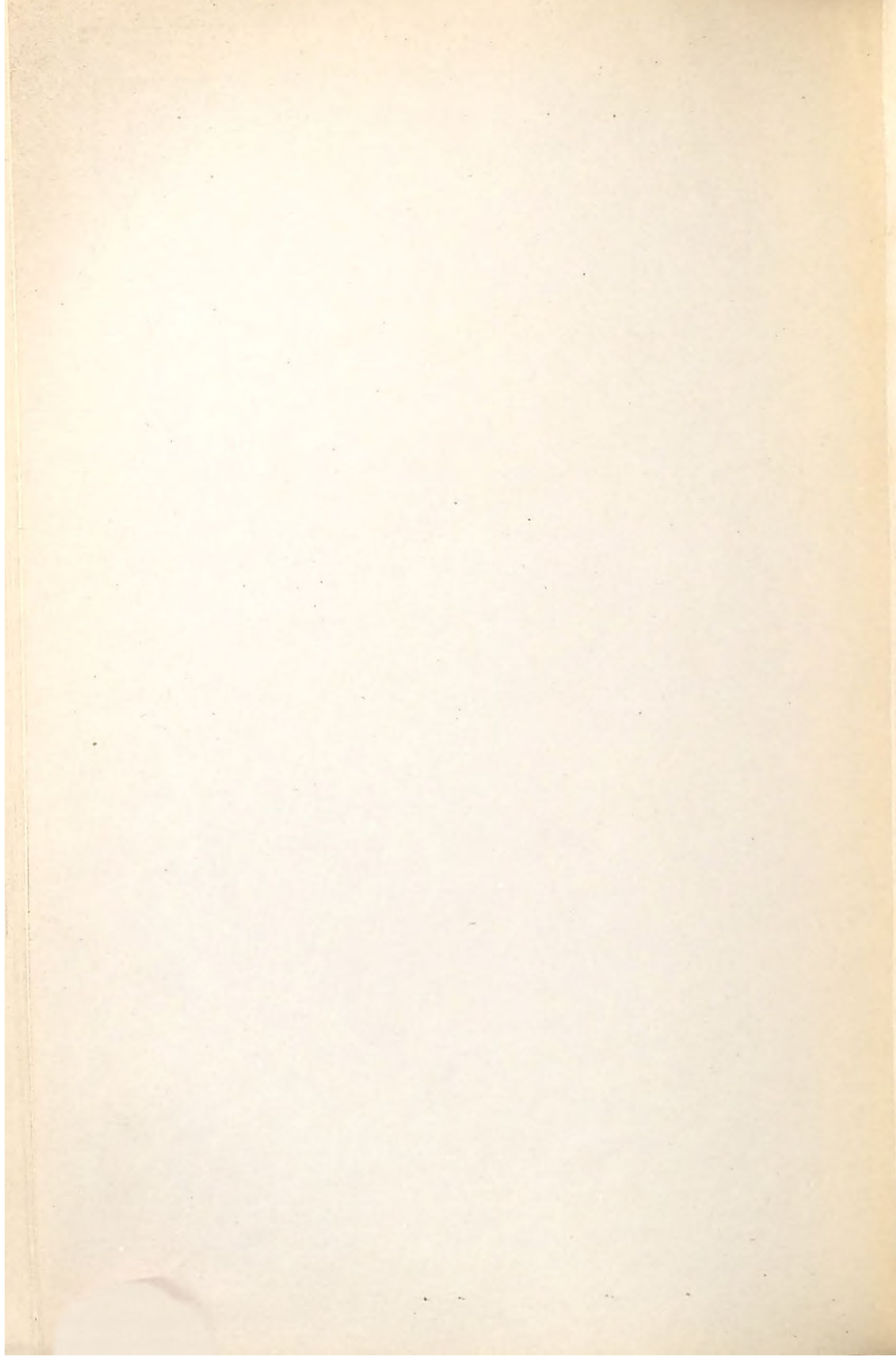
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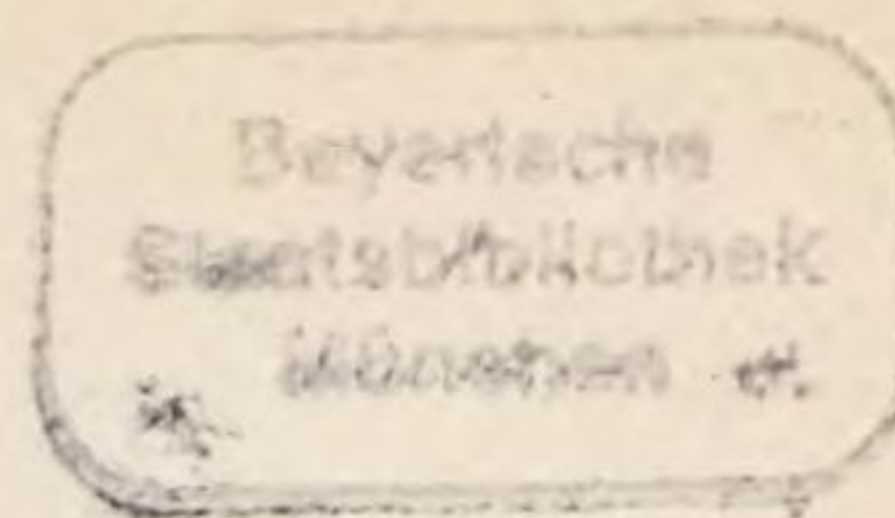

Micrometrical Measurements

OF

DOUBLE STARS,

1879-80.





PUBLICATIONS OF THE CINCINNATI OBSERVATORY.

— 6 —

MICROMETRICAL MEASUREMENTS

OF

455 DOUBLE STARS,

OBSERVED WITH THE

11 INCH REFRACTOR

DURING THE YEAR ENDING SEPTEMBER 1, 1880,

UNDER THE DIRECTION OF

ORMOND STONE, A. M.,

ASTRONOMER.

CINCINNATI:

PUBLISHED BY AUTHORITY OF THE BOARD OF DIRECTORS OF THE UNIVERSITY.

1882.

INTRODUCTION.

THE present number of the Publications of this observatory consists partly of the results of observations preliminary to the preparation of a general catalogue of known double stars, situated between the equator and 30° south declination, and partly of observations of double stars which Mr. Burnham has found, in the course of his investigations, to need re-observing. These latter stars are not limited to the southern hemisphere. Northern stars were usually observed but once, except in cases where the first observation differed to such an extent from that given by Mr. Burnham as to indicate a possibility of change, either in position angle or distance. Southern objects, which had not already been measured at this observatory, were observed, as far as possible, twice. Binaries were, of course, observed more frequently. The observers were Messrs. H. A. Howe, H. V. Egbert and myself.

Personal Equation.—The observations were made and reduced in substantially the same manner as those contained in No. 5. The personal equations of Mr. Howe and myself were assumed to be the same as hitherto. Mr. Egbert's observations were included with the others, but reduced to the common standard by means of the following corrections deduced from observations contained in this number:

Class of Obs.	Corr. P.	No. of Comp.	Corr. D.	No. of Comp.
E_n	$0.0-0.6\ w$	38	$-0''.01$	22
E_p	$-1.7-0.6\ w$	45	$+0.12$	28

where P is the position angle, D the distance and w the reciprocal of the visual angle (Publications Cincinnati Observatory, No. 5, Introduction).

A comparison of the mean results contained in this and the previous number gave for position angles:

$$C_6-C_5 = -0.2 + 0.6 \cos 2P + 0.3 \sin 4P - [1.0 + 1.1 \sin (2P - 60^\circ)] w,$$

and for distances,

$$C_6-C_5 = +0''.12 + 0''.08 \sin (2P - 60^\circ) - 0.015 D.$$

Binaries.—Those stars of the Dorpat Catalogue which show a difference of more than 3° between C_6 and Σ may be classified as follows:

Differences between 3° and 5° : Σ 30, 82, 103, 105, 114, 233, 280, 355, 444, 487, 516, 529, 536, 564, 1146, 1506, 1690.

Differences between 5° and 10° : Σ 67, 118, 122, 248, 334, 371, 407, 442, 493, 609, 712, 1847, 2023, 3081.

Differences between 10° and 20° : Σ 23, 86, 113, 295, 408, 1500, 1876.

Differences greater than 20° : Σ 125, 308?, 483?, 651?, 1216, 1664, 1670, 1998.

The following have differences in distance greater than $1''.0$: Σ 23, 30, 125, 171, 308?, 476, 518 AB, 651?

A similar comparison with the micrometrical measures made by Sir John Herschel with his seven-feet equatorial, at the Cape of Good Hope, gave the following classification:

Difference between 5° and 10° : h 5232.

Difference between 10° and 20° : h 2036.

Difference greater than 20° : Sh 243.

A comparison with observations made with the twenty-feet reflector gave:

Differences between 5° and 10° : h 3068, 4337, 4478, 4839, 5393, 5394.

Differences between 10° and 20° : h 4637, 4826.

The following doubles discovered by Mr. Burnham also need further attention:
 β 4, 267, 437, 555, 584.

ORMOND STONE,

Astronomer of the Cincinnati Observatory.

Mt. Lookout, February, 1882.

MICROMETRICAL MEASUREMENTS

OF

DOUBLE STARS,

1879-80.

Observations of Double Stars

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
1	Σ 3063	0 1	31 40	33 45	175 30	40.748	40.215	-0.2	n	A
2	...	...	35 50	37 50	175 30	...	...	-0.3	p	A
3	...	...	39 20	41 25	175 44	40.290	39.768	-0.2	n	A
4	Σ 3064 rej.	0 2	169 55	170 15	175 44	43.508	36.552	-3.6	p	III
5	β 486	0 8	359 30	2 35	355 34	40.978	40.037	-0.8	n	A
6	...	...	2 40	2 35	355 38	40.953	40.049	-1.0	n	III
7	Σ 15	0 10	193 30	193 25	355 42	40.164	38.657	-1.7	p	A
8	h 1947	0 10	72 25	73 15	355 44	41.256	38.628	-3.2	n	III
9	Weisse	0 11	282 35	283 0	175 44	40.752	39.198	-3.5	n	A
10	Σ 23	0 11	164 30	165 30	175 42	40.678	38.300	0.0	n	A
11	β 393	0 12	6 20	7 10	355 42	40.593	40.366	-0.3	p	VI
12	β 256	0 13	245 10	245 20	355 30	40.848	40.142	-0.7	p	A
13	H v 85	0 14	12 0	12 0	355 44	49.188	30.788	-3.1	p	III
14	...	...	192 45	192 50	175 30	48.658	35.333	-2.6	p	III
15	Σ 30	0 21	294 35	295 5	355 44	43.323	37.696	-5.2	n	A
16	...	...	295 15	295 25	355 44	42.883	37.253	-3.0	n	III
17	Σ 31	0 22	234 35	235 30	175 44	40.803	39.208	-2.8	n	III
18	...	...	221 25	221 35	175 44	40.814	39.192	-2.8	p	III
19	h 1968	0 22	246 50	247 50	175 30	41.568	39.360	-0.7	p	A
20	...	...	245 15	248 10	175 30	41.587	39.422	-0.8	p	A
21	h 1980	0 25	299 20	301 5	175 30	40.353	38.656	-0.8	p	III
22	h 3377	0 27	233 30	234 10	175 30	42.198	37.834	-1.5	p	III
23	h 3379	0 31	227 30	227 10	355 42	42.753	38.254	0.0	n	A
24	...	...	225 40	226 30	355 42	42.602	38.372	0.0	p	A
25	...	...	226 0	227 25	355 30	42.503	38.473	-0.6	p	A
26	h 1044	0 34	315 25	315 30	355 44	43.272	36.874	-2.7	n	III
27	...	...	314 35	315 5	355 44	43.210	36.815	-2.6	p	III
28	Σ 67	0 46	3 10	4 45	355 42	40.240	39.738	-1.9	n	III
29	...	...	181 35	183 30	175 42	39.782	39.214	-1.8	p	III
30	h 2000	0 46	291 10	291 35	175 30	42.092	36.947	0.0	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
1	217.2	217.7	1.82	1.74	...	79.771	S	
2	221.3	221.8	...	...	8.5 9.5	79.771	S	
3	224.6	222.3	1.78	1.83	8.0 9.0	79.582	H	{ Very faint on account of twilight.
4	354.4	353.9	23.74	23.78	7.0 10.0	79.612	H	
5	5.5	5.7	3.21	3.13	6.0 11.0	79.765	S	Color of principal star 3.15.
6	7.0	7.3	3.09	2.93	5.5 10.0	79.760	S	Color of principal star 5.18.
7	197.8	196.0	5.14	5.26	9.0 10.5	79.658	E	Distance very poor.
8	77.1	76.4	8.97	9.07	7.0 9.0	79.612	H	
9	107.1	106.4	5.30	5.35	8.0 8.2	79.612	H	
10	349.3	349.2	8.12	8.11	...	79.746	E	
11	11.0	11.4	0.77	0.77	6.0 8.0	79.749	S	{ Distance est. 0".5. Beautifully divided.
12	249.8	250.3	2.41	2.41	8.5 9.5	79.773	S	
13	16.3	16.0	62.79	62.83	7.5 9.0	79.612	H	
14	17.3	15.6	62.54	62.78	...	79.784	E	{ Micrometer II changed 5 rev. in reduction.
15	299.1	299.1	19.20	19.12	7.0 9.0	79.604	S	
16	299.6	299.0	19.21	19.31	6.5 8.0	79.612	H	
17	59.3	58.5	5.44	5.54	...	79.612	H	
18	55.8	55.7	5.54	5.58	8.5 9.0	79.612	H	{ Position Angle changed 10° in reduction.
19	71.8	72.2	7.54	7.54	7.0 11.0	79.787	S	
20	71.2	71.6	7.39	7.39	7.0 10.5	79.853	S	Poor measure.
21	124.7	122.8	5.79	6.03	...	79.776	E	
22	58.3	56.5	18.31	18.55	...	79.902	E	{ Poor definition; companion very faint.
23	231.6	231.9	15.35	15.27	...	79.749	S	
24	230.4	230.6	14.44	14.44	7.5 10.0	79.749	S	
25	231.2	231.4	13.75	13.75	6.5 9.0	79.773	S	Clouds; distance poor.
26	319.7	319.1	21.84	21.94	8.5 8.7	79.612	H	
27	319.1	318.6	21.82	21.86	...	79.612	H	
28	8.3	4.1	1.71	1.81	8.0 9.0	79.735	H	Moderately good night.
29	6.8	4.6	1.94	2.18	9.0 10.0	79.658	E	Blurry and faint.
30	115.9	114.2	17.56	17.80	...	79.902	E	

Observations of Double Stars

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
31	β 734	0 47	340 25	342 30	355 42	42.097	38.924	-0.6	n	A
32	Σ 70	0 47	58 55	59 15	175 30	40.717	38.305	-2.6	n	A
33	...	...	240 50	240 20	355 30	40.673	38.314	-2.8	n	A
34	W. C. 457, 8	0 47	6 50	9 45	355 42	41.292	39.658	-0.3	n	A
35	H. A. H. 1	0 50	279 20	280 45	175 30	40.747	40.247	-0.4	p	A
36	...	...	278 45	280 50	175 30	40.738	40.230	-0.8	p	A
37	Σ 76	0 50	196 35	197 20	355 42	39.954	39.035	-1.7	p	III
38	Σ 82	0 54	123 25	121 30	175 42	39.791	39.085	-1.8	n	III
39	h 2010	0 56	267 5	267 35	355 44	41.442	38.532	-2.8	n	III
40	h 1064	0 56	358 50	0 10	355 44	...	...	-2.6	p	III
41	Σ 86	0 59	334 50	337 5	175 30	...	...	-0.7	p	A
42	...	...	334 55	336 10	175 30	...	...	-0.8	p	I
43	...	...	155 55	155 45	355 42	41.398	38.622	-0.5	n	A
44	...	...	334 25	335 10	175 30	41.387	37.594	-1.1	n	A
45	...	...	165 15	165 0	355 30	41.385	37.646	-1.3	n	A
46	h 10 A,B	0 59	310 20	311 30	355 42	40.672	39.308	-1.5	n	III
47	...	...	306 40	307 25	355 42	...	...	-1.4	p	III
48	...	...	308 40	309 40	355 42	...	...	...	...	...
49	... A,C	...	230 40	232 55	175 42	41.273	38.705	-1.4	p	III
50	...	...	232 35	232 15	175 42	...	...	-1.8	p	A
51	... B,C	...	258 10	258 40	355 42	31.562	38.412	-1.4	p	III
52	...	...	260 45	261 10	355 42	...	...	-1.7	p	A
53	H iv 66	1 0	250 25	251 0	175 30	42.865	36.173	-2.4	n	A
54	Σ 89 rej.	1 0	190 20	190 40	175 42	41.869	37.137	-1.2	n	A
55	h 633	1 3	139 5	139 20	355 42	40.886	38.132	-1.8	n	III
56	Σ 96	1 5	96 55	97 15	175 30	39.687	39.308	-2.4	p	A
57	Σ 101	1 8	336 0	337 10	355 30	43.568	47.394	-0.6	n	A
58	...	...	335 30	336 30	335 34	43.586	37.428	-1.1	n	III
59	H. V. E. A,B	1 9	89 10	88 50	175 30	...	...	-2.2	n	III
60	... A,C	...	110 5	109 50	335 30	...	...	-2.2	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
31	° 345.8	° 345.6	// 10.83	// 10.75	5.5 9.5	79.694	S	
32	243.6	243.5	8.23	8.22	...	79.779	E	
33	245.1	245.0	8.05	8.04	...	79.784	E	Poor definition.
34	12.6	12.7	5.58	5.50	7.0 9.0	79.694	S	
35	104.5	105.2	1.71	1.71	8.5 8.5	79.773	S	Both stars white.
36	104.3	105.0	1.73	1.73	8.5 8.5	79.787	S	
37	201.3	199.3	3.14	3.38	9.0 13.0	79.735	E	
38	306.8	306.8	2.41	2.40	8.0 9.0	79.658	E	
39	271.6	270.8	9.93	10.03	8.0 9.5	79.612	H	Poor definition.
40	3.8	3.4	15.e	...	6.0 13.0	79.612	H	{ Tangent screw not used. Too faint for distance.
41	160.5	161.0	...	...	...	79.853	S	
42	160.0	...	...	...	...	79.853	S	
43	160.1	160.1	12.89	12.88	...	79.746	E	{ Mic. II assumed 37.622 in reduction.
44	159.3	159.3	12.94	12.93	...	79.776	E	
45	169.6	159.6	12.76	12.75	...	79.902	E	{ Pos. Angle changed 10° in reduction.
46	315.2	314.0	4.66	4.76	8.5 10.0	79.656	H	
47	311.3	311.5	...	...	...	79.656	H	
48	313.5	313.4	...	...	... 9.5	79.656	E	
49	56.1	55.7	8.76	8.80	...	79.656	H	
50	56.7	54.9	...	...	8.0 9.0	79.656	E	
51	262.7	262.5	10.75	10.79	... 10.0	79.656	H	
52	265.3	263.5	...	...	...	79.656	E	
53	75.2	75.2	22.84	22.83	...	79.779	E	
54	14.8	14.8	16.15	16.14	8.5 9.0	79.752	E	
55	143.5	143.4	9.40	9.39	10.0 11.0	79.735	E	
56	281.6	279.5	1.29	1.41	...	79.779	E	
57	341.1	340.9	21.07	20.99	7.0 10.0	79.787	S	{ Mic. II assumed 37.394 in reduction.
58	340.4	340.2	21.02	20.86	7.0 9.5	79.765	S	
59	273.5	271.8	...	...	...	79.779	E	{ Near a double having Pos. Angle = 190°.
60	114.5	114.5	...	...	...	79.779	E	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
61	Σ 103	1 9	240 55	241 15	355 42	40.231	38.700	-1.7	p	III
62	Σ 106	1 10	123 15	124 30	175 42	40.178	38.824	-1.5	n	III
63	Σ 102 A, B	1 11	309 0	306 25	355 44	...	...	-2.4	n	A
64	...	...	307 50	309 35	355 44	...	...	-2.3	p	A
65	$\dots \frac{1}{2}(A+B), C$	...	221 5	220 55	355 44	41.430	38.504	-2.7	n	A
66	...	...	220 35	220 10	355 44	41.460	38.500	-2.6	p	A
67	$\dots \frac{1}{2}(A+B), D$	...	239 0	239 15	175 44	44.039	35.829	-2 3	n	A
68	Σ 105	1 11	179 50	179 40	355 30	39.910	39.094	-2.0	p	A
69	Σ 112	1 14	144 35	144 15	175 30	42.791	36.180	2.9	p	III
70	Σ 113	1 14	344 5	344 40	355 34	40.683	40.284	-0.9	n	VI
71	...	...	340 40	343 35	335 30	40.706	40.264	-0.2	n	VI
72	h 2036	1 14	197 15	201 40	175 30	40.728	40.245	-0.6	n	VI
73	...	...	201 15	203 0	175 30	...	...	-0.6	p	A
74	...	...	202 10	201 30	175 30	39.690	39.282	-1.2	p	A
75	...	...	199 25	200 2	175 30	39.725	39.212	-1.0	p	A
76	...	...	201 50	200 30	175 42	...	...	-0.5	p	A
77	Σ 114	1 15	168 30	168 45	175 42	40.064	38.938	-1.2	n	A
78	...	...	169 20	170 30	175 30	...	...	-1.8	...	...
79	β 4	1 17	287 45	300 30	175 42	...	...	-1.3	p	A
80	Secchi	1 18	251 30	252 25	175 30	40.882	40.114	-0.1	p	A
81	Σ 120	1 19	94 40	94 40	175 42	41.100	38.938	+0.2	p	III
82	...	...	276 40	276 30	355 30	40.610	38.407	-1.2	p	III
83	Σ 122	1 21	324 30	326 0	355 42	40 850	39.178	-1.9	n	III
84	...	...	322 50	321 50	355 42	40.463	38.572	-2.0	n	III
85	Σ 118	1 21	67 20	67 5	355 30	41.193	37.797	-1.7	p	A
86	...	...	67 20	66 30	355 42	41.173	37.832	-1.3	p	III
87	Σ 125	1 21	166 25	167 0	175 42	44.508	35.392	-0.1	n	III
88	Σ 127	1 25	181 45	182 5	355 42	43.123	35.859	-2.2	n	A
89	...	...	1 40	0 55	175 42	43.082	35.901	-1.3	n	III
90	h 1085	1 30	112 50	114 15	175 42	40.059	38.928	-2.1	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
61	° 245.4	° 243.6	// 5.23	// 5.47	8.0 11.0	79.735	E	Very faint.
62	308.2	307.9	4.62	4.61	9.0 9.0	79.735	E	
63	312.0	304.8	0.5e	0.52	7.0 8.0	79.612	H	
64	313.0	310.8	...	...	...	79.612	H	
65	225.3	224.9	9.99	10.04	7.0 8.5	79.612	H	
66	224.6	224.5	10.10	10.12	...	79.612	H	
67	63.4	63.0	28.02	28.07	7.0 10.0	79.612	H	{ Two other faint doubles in the field.
68	184.2	182.3	2.78	2.90	...	79.779	E	
69	328.9	327.2	22.56	22.80	...	79.784	E	Blurry.
70	348.8	348.9	1.36	1.32	7.5 8.0	79.765	S	Pretty steady, but thick haze.
71	346.6	346.6	1.51	1.47	5.5 7.5	79.787	S	
72	24.0	24.2	1.65	1.61	...	79.771	S	
73	26.6	26.8	...	...	7.5 8.0	79.771	S	
74	26.3	24.1	1.39	1.51	...	79.776	E	Blurry.
75	24.2	22.1	1.75	1.87	...	79.902	E	Very blurry.
76	25.5	23.4	...	...	...	79.746	E	
77	352.9	352.7	3.84	3.83	...	79.752	E	
78	354.4	354.2	...	...	...	79.779	E	
79	118.4	119.1	0.5e	0.52	7.0 7.0	79.656	H	Wide companion at 100°.
80	76.0	76.5	2.62	2.62	7.0 9.0	79.771	S	
81	279.0	278.6	7.38	7.42	7.0 11.0	79.680	H	
82	281.1	279.2	7.52	7.51	...	79.776	E	
83	329.6	328.4	5.71	5.81	7.5 9.0	79.658	H	
84	326.6	326.4	6.45	6.44	8.0 9.0	79.658	E	
85	71.7	70.0	11.59	11.71	...	79.779	E	
86	71.2	69.4	11.40	11.64	8.5 9.5	79.754	E	
87	351.0	350.6	31.11	31.21	8.0 10.0	79.680	H	
88	186.2	186.2	24.79	24.78	8.0 9.0	79.754	E	
89	185.6	185.6	24.51	24.50	8.5 9.5	79.754	E	
90	297.8	295.9	3.86	3.98	8.5 9.0	79.754	E	

Observations of Double Stars

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
91	h 1085 (continued.)	1 30	113 25	113 50	355 42	40.046	38.951	—1.5	p	A
92	h 17	1 33	276 30	276 50	355 42	41.156	38.873	—1.5	p	A
93	h 641	1 34	304 30	306 30	175 30	40.313	68.646	...	n	A
94	...	...	304 55	304 35	175 42	40.291	38.703	—1.6	...	...
95	Σ 146	1 35	301 35	301 35	355 42	...	...	—1.4	n	A
96	...	...	301 40	301 25	355 42	43.529	36.487	—1.4	p	A
97	Σ 147	1 36	262 25	263 0	175 42	40.512	39.492	0.0	p	III
98	...	...	265 25	265 25	175 42	40.042	38.957	—0.6	p	A
99	Σ 160	1 40	85 0	86 10	175 42	41.398	38.638	—2.0	p	III
100	...	...	266 15	266 30	355 30	40.903	39.082	—1.0	p	III
101	Σ 166	1 42	357 40	357 0	355 42	41.119	38.885	—1.9	n	III
102	...	...	175 50	176 0	175 30	40.709	38.284	—0.8	n	III
103	β	1 42	343 20	349 0	355 30	...	...	—0.2	n	A
104	...	...	169 40	169 25	175 42	...	...	—0.3	n	A
105	...	...	165 0	163 10	175 42	...	...	—0.6	n	A
106	H. V. E.	1 42	143 15	143 45	355 30	40.341	38.696	—2.8	p	A
107	h 644	1 42	93 5	93 40	175 42	42.484	37.506	—1.2	p	III
108	Σ 171	1 43	335 0	335 55	175 42	44.340	35.595	—1.8	n	III
109	...	...	335 10	335 10	355 30	43.892	35.092	—0.6	n	III
110	Σ 173 rej.	1 44	20 0	19 55	175 42	43.298	36.712	—1.1	n	III
111	...	...	199 10	199 40	355 42	43.286	36.738	—1.0	p	III
112	Σ 170	1 44	240 40	241 35	355 42	39.985	39.024	—1.4	n	A
113	...	...	241 30	241 50	255 42	40.001	39.020	—1.3	p	A
114	Σ 177	1 45	297 35	297 55	175 42	44.449	34.398	—1.2	p	III
115	Σ 3113	1 46	270 15	270 20	355 44	40.143	39.808	—2.7	n	A
116	β 183	1 47	219 15	223 45	355 30	40.830	40.122	—0.2	p	A
117	Σ 199	1 56	15 40	16 5	355 30	44.819	34.187	—1.7	n	A
118	Σ 206	1 56	309 35	309 50	175 42	44.551	35.387	—1.1	n	III
119	Σ 214	2 1	7 55	8 25	175 42	40.710	39.277	—1.9	n	III
120	...	...	4 15	4 5	175 42	40.719	39.285	—1.9	...	...

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	''	''				
91	298.1	296.2	3.74	3.86	...	79.779	E	
92	281.0	280.8	7.79	7.81	9.0 10.0	79.656	H	{ Difficult to measure with Power A.
93	130.0	129.9	5.69	5.68	...	79.776	E	
94	129.0	128.8	5.42	5.41	8.5 11.0	79.735	E	
95	305.9	305.5	...	...	...	79.656	H	
96	305.8	305.7	24.03	24.05	8.0 8.0	79.656	H	
97	87.0	86.4	3.48	3.52	6.0 7.0	79.680	H	
98	89.7	87.8	3.70	3.82	...	79.746	E	
99	269.8	269.6	9.42	9.46	9.0 10.0	79.658	H	
100	270.9	269.1	9.63	9.87	...	79.776	E	
101	1.6	0.5	7.62	7.72	8.5 9.0	79.658	H	
102	0.4	0.3	8.28	8.27	...	79.776	E	
103	350.7	350.9	1.4e	1.42	8.0 9.0	79.787	S	Poor definition.
104	353.8	351.8	...	...	8.5 10.0	79.680	H	Distance impossible.
105	348.6	348.2	...	...	...	79.902	E	Too faint for distance.
106	148.0	146.2	5.61	5.73	8.0 8.5	79.784	E	
107	277.7	277.5	16.99	17.03	7.5 13.0	79.656	H	
108	159.8	159.3	29.84	29.94	8.5 8.5	79.658	H	
109	339.7	339.7	30.03	30.02	...	79.776	E	
110	204.3	203.7	22.48	22.58	8.5 10.0	79.656	H	
111	203.7	203.2	22.35	22.39	...	79.656	H	
112	245.4	245.2	3.28	3.27	7.0 8.5	79.754	E	
113	246.0	244.1	3.35	3.47	...	79.754	E	
114	122.0	120.3	34.30	34.54	9.0 9.5	79.735	E	Careful measure.
115	274.6	272.2	1.14	1.19	8.5 8.5	79.612	H	
116	226.3	226.7	2.42	2.42	8.0 9.5	79.771	S	Clouds; principal star white.
117	20.4	20.4	36.28	36.27	...	79.779	E	
118	134.0	133.6	31.28	31.38	8.0 9.0	79.656	H	
119	192.5	190.8	4.89	4.99	8.0 9.5	79.658	H	
120	188.5	187.7	4.90	4.94	...	79.658	H	Assumed p III.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
121	Σ 222	2 4	211 30	211 15	175 30	41.967	37.039	—2.9	p	A
122	Σ 231	2 7	47 5	47 5	175 42	42.311	37.670	—0.4	n	III
123	...	...	45 40	45 50	175 42	42.272	37.652	—0.3	p	III
124	Σ 237	2 9	53 35	53 30	175 42	41.113	38.889	—1.2	p	III
125	...	...	232 0	231 55	355 42	41.046	38.008	—1.0	p	I
126	Σ 233	2 10	91 15	91 10	175 42	...	...	—1.4	p	III
127	...	...	92 10	91 25	175 30	...	...	—1.2	...	...
128	Σ 238	2 10	172 5	171 55	175 30	41.094	37.894	—2.6	p	III
129	Σ 246	2 11	297 0	298 15	175 30	41.032	38.968	—2.2	...	...
130	Σ 247 rej.	2 12	28 50	29 50	355 42	...	...	—1.9	n	III
131	...	...	27 55	29 5	355 42	41.051	38.904	—1.8	p	III
132	β 437	2 12	25 15	26 50	355 42	40.818	39.128	—1.8	p	III
133	Σ 248	2 14	330 40	332 15	175 44	40.322	39.763	—2.9	p	A
134	Σ 250	2 14	312 45	312 25	175 44	40.374	39.588	—2.5	n	A
135	Σ 251	2 14	260 20	263 35	355 44	40.273	39.630	—2.8	n	A
136	Σ 261	2 18	243 30	242 55	175 42	40.420	39.558	—0.9	p	A
137	...	...	243 40	243 55	175 42	40.432	39.557	—1.1	p	III
138	Σ 271	2 24	177 0	177 10	355 30	41.256	37.720	—1.7	...	...
139	Σ 276	2 26	250 20	250 20	255 42	40.306	39.692	—1.8	p	III
140	Σ 280	2 28	343 45	343 10	355 42	40.502	39.480	—0.2	n	A
141	...	...	164 0	164 5	175 42	40.492	39.513	—0.4	n	III
142	...	...	342 10	342 30	355 42	40.037	39.987	—1.4	n	III
143	...	...	340 45	342 0	355 42	39.961	39.959	—1.2	n	I
144	h 3506	2 29	236 30	239 0	355 30	42.064	38.943	—0.8	p	A
145	...	...	236 15	237 20	355 30	42.113	38.851	—0.5	p	I
146	Σ 282	2 31	107 10	107 55	175 30	40.552	38.473	—1.5	n	A
147	...	...	110 5	110 10	175 30	40.559	38.433	—1.5	p	A
148	Σ 287	2 32	247 35	247 20	175 42	40.938	39.054	—1.0	p	A
149	h 1123	2 34	63 20	63 35	175 44	42.978	37.043	—2.6	n	A
150	...	...	63 10	62 55	175 44	42.912	37.026	—2.7	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
121	° 35.9	° 34.2	// 16.82	// 16.94	...	79.785	E	
122	231.4	230.6	15.84	15.94	6.0 8.0	79.680	H	
123	230.0	229.5	15.77	15.81	...	79.680	H	Windy.
124	237.8	237.4	14.42	14.46	8.0 8.3	79.656	H	{ Distance changed 2 rev. in reduction.
125	236.3	...	13.78	...	...	79.656	H	{ Distance changed 1 rev. in reduction.
126	275.5	273.3	...	...	...	79.754	E	Clouded up.
127	276.3	274.4	...	...	...	79.779	E	Too faint for distance.
128	356.5	354.7	10.92	11.16	...	79.785	E	
129	122.1	122.1	10.46	10.45	...	79.785	E	{ Distance changed 1 rev. in reduction.
130	33.6	32.2	...	...	10.0 10.5	79.658	H	
131	32.8	32.2	7.33	7.37	...	79.658	H	
132	30.3	29.6	5.77	5.81	8.0 12.0	79.658	H	Very faint.
133	155.7	155.1	1.91	1.93	8.5 9.0	79.612	H	
134	136.8	135.4	2.68	2.73	8.0 9.0	79.612	H	
135	266.2	265.2	2.19	2.24	8.0 9.0	79.612	H	
136	67.5	67.1	2.94	2.96	...	79.656	H	
137	68.1	67.5	2.99	3.03	8.5 9.0	79.656	H	
138	181.6	181.6	12.07	12.06	...	79.785	E	
139	254.6	254.3	2.10	2.14	8.5 8.5	79.658	H	
140	347.8	346.9	3.49	3.54	...	79.680	H	
141	348.3	346.7	3.34	3.44	8.0 8.0	79.680	H	
142	346.6	346.3	3.58	3.57	...	79.735	E	
143	345.7	...	3.42	...	...	79.735	E	{ Mic. II assumed 38.959 in reduction.
144	242.2	242.4	10.65	10.65	4.5 7.5	79.787	S	Both stars white.
145	241.3	...	11.13	...	...	79.787	S	
146	292.0	291.9	7.10	7.09	...	79.779	E	
147	294.6	292.8	7.26	7.38	...	79.779	E	
148	71.8	71.5	6.30	6.32	7.5 10.0	79.656	H	
149	247.7	247.3	20.26	20.31	...	79.612	H	
150	247.3	247.2	20.09	20.11	8.0 8.2	79.612	H	Micrometer reversed.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
151	0 Σ 44	2 34	45 40	48 25	355 44	40.231	39.779	-2.8	p	A
152	0 Σ 45	2 35	292 15	291 40	355 42	39.777	39.218	-0.8	p	A
153	h 2155	2 35	136 25	137 55	175 44	42.512	37.528	-2.4	n	III
154	...	...	316 40	316 20	355 44	42.568	37.518	-2.1	p	III
155	Σ 295	2 35	320 35	321 20	355 42	...	...	-0.3	n	A
156	...	...	318 25	317 50	355 42	40.662	39.372	-0.2	p	A
157	...	...	138 45	137 50	175 30	40.133	38.824	-1.2	n	A
158	Σ 299	2 37	283 50	285 50	355 42	39.950	39.050	-1.2	p	A
159	Σ 303	2 39	358 25	356 35	175 42	40.768	39.242	-1.9	n	III
160	...	..	176 30	176 0	355 30	40.321	38.675	-1.1	n	A
161	Br. 394	2 39	182 35	182 45	355 30	41.218	36.784	-0.7	n	III
162	Σ 308	2 42	333 50	333 30	175 30	41.322	37.695	-0.9	n	III
163	β 10	2 44	97 10	95 20	175 42	40.348	39.610	-0.2	p	III
164	Σ 330	2 51	8 35	8 15	175 42	40.218	39.740	-1.6	n	A
165	...	...	188 5	187 55	355 30	40.788	38.218	-0.8	p	III
166	Σ 334	2 53	311 15	312 15	355 30	...	...	-1.2	...	...
167	Σ 341	2 57	44 55	44 35	175 42	...	...	-0.3	n	III
168	...	...	45 20	45 15	175 42	...	...	0.0	n	I
169	...	...	42 0	43 50	175 42	41.238	38.732	-2.1	p	III
170	...	...	43 10	43 5	175 42	41.208	39.745	-0.2	p	III
171	...	...	41 5	42 40	175 42	41.152	38.787	+0.1	p	I
172	...	...	225 10	224 20	355 42	40.752	38.261	-1.8	p	III
173	Σ 355	3 1	322 10	323 5	175 42	40.360	39.631	-1.4	n	A
174	Σ 358	3 3	346 0	348 35	355 42	...	...	-2.1	n	III
175	h 3554	3 7	343 35	344 10	355 42	42.927	37.083	-1.2	n	III
176	β 84	3 10	203 55	207 25	175 30	40.610	40.382	-0.2	n	VI
177	Σ 371 A,C	3 10	259 40	259 35	175 44	40.400	39.593	-2.7	n	III
178	Jacob	3 14	277 30	277 15	355 30	...	...	...	p	III
179	Schj. 1001	3 19	359 35	359 55	175 42	42.478	37.469	-1.2	n	III
180	Σ 393	3 20	74 25	73 55	175 42	42.360	37.658	-1.1	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
151	51.3	51.2	1.54	1.56	8.0 9.0	79.612	H	In a cluster.
152	296.3	294.3	1.91	2.03	6.5 10.0	79.735	E	
153	321.4	320.7	17.01	17.11	8.0 9.5	79.612	H	
154	320.8	320.3	17.23	17.27	...	79.612	H	
155	325.3	324.6	...	...	6.0 11.0	79.680	H	
156	322.4	322.4	4.40	4.42	...	79.680	H	
157	322.8	322.7	4.47	4.46	...	79.902	E	Very poor definition.
158	289.1	287.2	3.07	3.19	4.0 10.0	79.735	E	
159	181.8	180.3	5.21	5.31	8.0 9.0	79.658	H	
160	180.8	180.7	5.62	5.61	...	79.776	E	
161	187.2	187.1	11.72	11.71	...	79.902	E	{ Mic. assumed 37.784 in reduction.
162	158.2	158.1	12.38	12.37	...	79.776	E	
163	100.6	100.1	2.52	2.56	8.0 12.0	79.680	H	Clouds.
164	192.8	192.1	8.46	8.51	7.5 9.5	79.656	H	{ Dis. changed 2 rev. in reduction.
165	192.5	190.7	8.77	9.01	...	79.776	E	
166	316.2	315.8	...	...	...	79.902	E	{ Too poor definition for distance.
167	229.0	227.8	...	...	8.0 9.5	79.680	H	
168	229.6	...	...	...	...	79.680	H	
169	227.2	226.6	8.55	8.59	8.0 10.0	79.658	H	
170	227.4	226.8	8.41	8.45	...	79.680	H	Error of 1 rev. in distance.
171	226.2	...	8.07	...	...	79.680	H	
172	229.0	227.2	8.50	8.74	8.0 12.0	79.732	E	Very faint, poor definition.
173	146.9	145.7	2.49	2.54	8.5 9.0	79.656	H	
174	351.6	350.8	10.e	...	9.0 12.0	79.658	H	
175	348.2	347.6	19.94	20.04	8.0 11.0	79.656	H	
176	30.2	30.6	0.78	0.74	6.0 8.0	79.783	S	
177	83.9	82.0	2.75	2.85	8.0 10.0	79.612	H	B: 10m, P = 180°, D = 1".
178	281.9	280.0	...	...	...	79.902	E	
179	184.0	183.4	17.10	17.20	8.0 9.0	79.656	H	Im prec., 5' ± south of Σ 393.
180	258.5	258.2	16.05	16.09	8.0 10.5	79.656	H	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.	
			I.	II.		I.	II.				
		h. m.	° /	° /	° /	r.	r.				
181	Σ 394	3 21	339 50	339 20	175 42	40.986	39.026	—2.3	n	III	
182	H iv 89	3 24	322 45	324 15	175 42	42.988	37.040	—2.2	n	III	
183	Σ 407	3 24	223 15	221 25	175 42	39.858	39.008	—1.2	p	III	
184	Σ 408	3 25	332 50	333 55	355 30	39.692	39.307	+0.2	n	A	
185	Σ 414	3 28	0 15	1 15	175 42	41.119	38.918	—2.1	n	III	
186	...	...	357 40	358 45	175 42	41.033	38.922	—2.1	p	III	
187	Σ 416 rej.	3 28	48 50	48 50	355 42	43.783	36.209	—2.0	p	III	
188	Σ 438	3 36	235 35	237 0	355 42	40.257	39.742	—2.0	p	III	
189	Σ 439	3 37	33 10	33 30	355 44	43.417	36.578	—2.8	p	III	
190	Σ 442	3 38	258 35	261 50	355 42	...	...	—1.9	p	III	
191	H. A. H.	3 38	313 55	313 0	175 42	44.112	35.857	—1.8	n	III	
192	Σ 444	3 39	332 40	333 40	355 42	40.386	39.596	—1.6	n	III	
193	Σ 451 rej.	3 40	137 40	136 50	175 42	42.452	36.572	—1.3	n	III	
194	Σ 456 rej.	3 42	294 40	294 50	175 42	43.170	36.794	—1.3	p	III	
195	β 401	3 44	251 15	251 45	355 30	40.082	38.908	0.0	n	III	
196	...	...	253 20	253 25	355 30	...	...	—1.5	p	III	
197	Σ 468	3 48	273 35	272 25	175 42	42.978	37.042	—1.2	p	III	
198	Σ 478	3 53	311 35	312 30	175 42	40.971	38.091	—1.3	n	III	
199	Σ 476	3 54	281 45	280 50	355 44	42.882	37.020	—0.9	n	III	
200	Σ 487	A,B	3 55	183 55	184 45	175 42	41.288	37.672	—1.1	n	III
201	...	A,C	...	231 45	230 30	355 42	...	...	—1.1	p	III
202	Σ 482	3 56	300 0	299 15	175 42	41.910	38.070	—1.7	n	III	
203	Σ 483	3 56	348 0	350 55	175 44	40.304	39.722	—2.8	p	III	
204	Σ 493	4 0	269 15	269 40	175 42	40.238	39.749	—1.2	p	A	
205	...	...	266 40	268 40	175 42	40.237	39.774	—1.3	p	III	
206	Σ 515	4 7	39 35	39 40	355 42	...	...	—1.2	n	A	
207	...	...	38 35	39 35	355 42	40.458	39.531	—1.2	p	A	
208	Σ 512	4 7	221 0	222 0	355 44	40.720	39.200	—2.7	n	A	
209	...	...	220 25	221 35	355 44	40.705	39.267	—2.4	n	III	
210	...	...	218 50	219 45	355 44	40.752	39.263	—2.8	p	A	

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
181	163.9	162.7	6.69	6.79	7.0 8.0	79.658	H	
182	147.8	147.3	20.30	20.40	8.0 9.5	79.658	H	
183	46.6	44.5	2.90	3.14	8.0 10.0	79.735	E	Very faint.
184	337.9	337.4	1.31	1.30	...	79.787	E	Very blurry.
185	185.0	183.7	7.51	7.61	7.5 7.5	79.658	H	
186	182.5	181.8	7.20	7.24	...	79.658	H	
187	53.0	52.7	25.85	25.89	8.5 9.5	79.658	H	
188	240.6	240.3	1.76	1.80	8.0 8.8	79.658	H	
189	37.6	37.3	23.34	23.38	8.0 10.0	79.612	H	
190	264.5	263.1	2.e	...	9.0 10.0	79.658	H	
191	137.8	137.3	28.17	28.27	8.0 12.0	79.658	H	{ Principal star suspected double; P=330°, D=0"5.
192	337.5	335.1	2.70	2.80	7.5 10.5	79.658	H	
193	321.6	321.5	20.07	20.06	8.0 8.5	79.735	E	
194	119.0	118.9	21.76	21.80	8.5 9.5	79.656	H	
195	256.0	255.7	4.01	4.00	6.0 10.0	79.771	E	Windy.
196	257.9	255.9	...	...	...	79.776	E	Too faint for distance.
197	97.3	97.1	20.76	20.80	8.5 9.5	79.656	H	
198	136.3	136.2	9.83	9.82	8.0 9.0	79.735	E	
199	285.6	285.0	20.01	20.11	7.5 8.5	79.612	H	
200	8.6	8.5	12.34	12.33	...	79.735	E	
201	235.4	233.6	...	...	...	79.735	E	
202	123.9	123.3	13.10	13.20	8.0 9.5	79.658	H	
203	173.7	172.6	1.99	2.03	8.0 9.5	79.612	H	Star unsteady.
204	93.8	93.6	1.67	1.69	...	79.656	H	
205	92.0	91.8	1.58	1.62	8.0 8.5	79.656	H	
206	43.9	42.4	...	...	8.0 8.5	79.656	H	
207	43.4	42.8	3.16	3.18	...	79.656	H	
208	225.8	225.3	5.19	5.24	...	79.612	H	
209	225.3	224.5	4.91	5.01	...	79.612	H	
210	223.6	223.4	5.08	5.10	7.5 7.5	79.612	H	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
211	Σ 512 (continued.)	4 7	219 15	219 55	355 44	40.722	39.185	-2.3	p	III
212	Σ 516	4 9	325 5	325 35	175 42	40.384	38.586	-2.4	n	III
213	Σ 518 A,B	4 10	280 50	280 45	175 42	52.562	28.412	-0.7	p	III
214	...	...	280 55	280 40	175 42	47.495	38.454	-0.8	p	II
215	... A,D	...	308 6	309 27	175 30	45.808	35.239	-0.5	n	III
216	...	...	...	...	...	45.610	35.115	0.0	n	III
217	... B,C	...	295 5	295 0	175 42	40.965	40.001	-0.2	p	III
218	Σ 525 rej. A,B	4 13	239 35	239 40	355 42	46.440	33.546	-1.0	p	III
219	... B,C	...	344 25	345 40	175 42	41.046	38.940	-1.1	n	III
220	Σ 527	4 13	5 25	8 35	175 30	41.354	39.602	-0.2	n	A
221	Σ 529	4 15	192 45	191 30	175 42	40.154	38.824	-2.8	p	A
222	Σ 536	4 16	154 45	154 50	355 30	39.763	39.242	-0.1	n	A
223	O. S.	4 24	342 25	342 20	355 30	40.504	38.518	-1.6	n	A
224	Σ 562	4 28	88 45	87 5	175 42	...	...	-2.0	n	III
225	...	...	81 0	81 5	175 42	40.304	39.672	-2.1	p	III
226	Σ 564	4 28	338 25	339 0	355 30	40.041	38.969	-0.4	n	A
227	β	4 28	40 10	41 50	355 30	...	...	-0.6	n	III
228	...	...	42 0	46 20	355 30	...	...	-0.5	p	III
229	Σ 609	4 44	251 35	251 15	175 30	39.848	39.139	-0.4	p	A
230	Σ 607	4 46	64 40	66 10	175 42	42.072	37.908	-2.2	p	III
231	O Σ 91	4 50	232 30	233 20	355 42	40.600	40.386	-0.4	p	VI
232	β 314	4 54	322 0	332 15	355 30	...	...	-0.5	n	VI
233	Σ 651	5 4	231 15	231 30	175 30	41.982	36.987	-0.7	p	A
234	Σ 661	5 8	357 5	356 30	355 42	40.358	39.634	-1.5	n	A
235	β 555 A,B	5 9	330 35	337 15	175 42	...	...	-0.7	n	VI
236	Σ 668 $\frac{1}{2}(A+B),C$	...	196 45	197 20	355 42	41.890	39.087	-0.4	n	VI
237	...	...	197 40	197 25	355 42	41.410	38.580	-1.8	n	III
238	...	...	19 20	18 40	175 42	41.391	38.644	-1.3	n	III
239	...	...	194 45	198 20	355 42	41.405	38.628	-1.8	p	III
240	...	...	16 20	17 40	175 42	41.329	38.638	-1.3	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
211	223.8	223.7	5.25	5.29	...	79.612	H	
212	149.6	149.4	6.14	6.13	6.0 10.0	79.732	E	Definition very bad.
213	105.2	105.6	82.42	82.42	4.0 8.5	79.763	S	
214	105.1	...	82.05	...	... 9.0	79.752	S	{ Distance changed 5 rev. in reduction. Color of principal star 5.18.
215	133.3	132.9	36.07	35.91	... 13.5	79.783	S	
216	...	...	35.82	35.66	... 12.0	79.763	S	{ Another comp. at about the same distance from A at 180°±
217	119.3	120.0	3.29	3.29	... 10.5	79.752	S	
218	243.9	243.6	44.01	44.05	8.0 9.0	79.656	H	
219	169.3	168.3	7.19	7.29	9.0 9.5	79.656	H	
220	191.5	190.7	5.98	5.90	7.5 10.0	79.785	S	
221	16.4	14.6	4.54	4.66	8.0 10.0	79.746	E	
222	159.3	159.0	1.78	1.77	...	79.771	E	
223	346.9	346.8	6.78	6.77	...	79.902	E	
224	272.2	270.6	...	...	...	79.658	H	
225	265.3	265.4	2.16	2.20	7.5 11.0	79.658	H	
226	343.2	343.0	3.66	3.65	...	79.787	E	Faint and difficult.
227	45.5	46.5	...	...	6.0 9.0	79.783	S	
228	48.7	49.6	...	...	...	79.783	S	Driving clock stopped.
229	75.9	74.0	2.42	2.54	...	79.771	E	
230	249.7	249.5	14.21	14.25	9.0 11.0	79.658	H	
231	237.2	237.7	0.73	0.73	8.0 8.5	79.752	S	
232	331.6	331.9	...	...	...	79.785	S	Very poor definition.
233	55.9	54.2	17.05	17.17	...	79.787	E	
234	1.1	359.6	2.47	2.52	...	79.656	H	
235	158.3	158.7	0.4e	0.42	1.0 6.0	79.763	S	{ Pear-shaped; no illumination; magnificent definition.
236	201.4	201.5	9.57	9.53	... 6.5	79.763	S	
237	201.8	200.7	9.66	9.76	1.0 7.0	79.656	H	
238	203.3	202.2	9.38	9.48	...	79.658	H	Just before sunrise.
239	200.8	200.2	9.48	9.52	...	79.656	H	
240	201.3	200.6	9.18	9.22	...	79.658	H	5 m. before sunrise.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
241	$\Sigma 668\frac{1}{2}(A+B)C$ (continued.)	5 9	196 30	196 40	355 42	40.934	38.118	—2.0	p	A
242	...	...	196 0	197 0	355 42	40.832	38.174	—1.8	p	I
243	$\Sigma 667$	5 9	309 0	309 10	175 42	40.079	38.953	—0.6	p	III
244	h 3752	5 15	274 45	274 50	175 30	40.932	40.042	—0.6	p	VI
245	$\Sigma 701$	5 18	219 50	219 55	175 42	40.332	38.644	—0.4	n	III
246	$\Sigma 702$	5 18	254 30	253 10	175 42	40.767	38.270	—1.5	p	III
247	$\Sigma 706$	5 19	217 45	216 45	175 42	40.022	38.937	—3.5	p	A
248	H vi 68	5 19	276 55	276 50	355 30	...	...	—1.5	p	III
249	$\Sigma 712$	5 20	230 15	230 45	175 30	39.908	39.062	—1.4	p	A
250	...	...	231 45	231 30	175 42	39.926	39.068	—1.7	p	...
251	$\beta 320$	5 23	281 15	283 35	355 30	...	...	—0.2	p	VI
252	...	...	280 5	280 35	355 42	40.870	40.116	—0.4	p	A
253	...	...	278 30	283 35	335 30	...	...	—0.3	p	III
254	$\Sigma 743$	5 29	275 15	276 30	355 30	39.783	39.171	—0.6	p	A
255	$\Sigma 741$	5 29	281 5	281 20	355 30	40.939	38.015	—0.7	p	III
256	H. V. E.	5 29	240 10	240 5	355 30	46.322	33.646	—1.2	p	III
257	$\Sigma 748$ A,B	5 29	55 0	55 20	355 42	41.895	38.090	—2.1	p	III
258	... A,C	...	307 20	308 15	355 42	41.858	38.119	—2.0	n	III
259	... B,D	...	295 5	295 5	355 42	42.768	37.187	—2.2	n	III
260	... C,c	...	342 0	343 40	355 42	40.506	39.500	—2.4	n	III
261	...	...	166 10	166 15	175 30	...	...	—0.3	n	A
262	...	...	166 0	167 0	175 42	...	...	—1.3	n	III
263	... C,D	...	28 0	27 25	355 42	41.218	38.772	—2.3	p	III
264	$\Sigma 752$ A,B	5 30	318 25	318 45	175 42	41.609	38.350	—1.8	n	III
265	H. C. Zones	5 30	217 30	216 30	175 30	...	...	—0.9	p	III
266	$\Sigma 754$	5 31	284 15	283 30	355 42	40.264	38.752	—0.4	p	III
267	$\Sigma 755$	5 32	311 25	314 5	355 42	40.833	39.148	—2.8	n	III
268	$\Sigma 759$	5 32	318 40	319 30	355 42	44.365	35.577	—2.5	n	III
269	$\Sigma 763$	5 33	314 40	316 0	355 42	40.817	39.190	—2.6	n	III
270	$\Sigma 774$	5 35	328 0	328 20	175 30	40.885	40.110	—0.4	n	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
241	200.9	199.1	9.61	9.73	...	79.735	E	
242	200.8	...	9.07	...	...	79.735	E	
243	313.4	311.4	3.84	4.08	7.0 10.0	79.735	E	
244	99.3	99.7	3.04	3.04	4.5 7.0	79.784	S	{ Distance observed without illumination. Pos. Angle changed 100° in reduction.
245	44.2	144.0	5.76	5.75	...	79.735	E	
246	78.1	76.3	8.52	8.76	8.0 9.0	79.735	E	
247	41.6	39.7	3.70	3.82	8.0 10.0	79.746	E	Windy.
248	281.4	279.7	...	...	...	79.825	E	Distance 9 rev. $\pm$
249	55.0	53.1	2.89	3.01	...	79.825	E	
250	55.9	54.0	2.93	3.05	...	79.735	E	
251	286.9	287.4	...	...	3.0 8.0	79.783	S	Definition too poor for distance.
252	284.6	285.2	2.57	2.57	2.5 7.5	79.752	S	Color of principal star 5.20.
253	285.5	286.3	...	...	...	79.783	S	
254	280.4	278.4	2.09	2.21	...	79.771	E	Distance poor; very blurry.
255	285.7	283.9	9.98	10.22	...	79.787	E	Companion very faint.
256	244.6	242.9	43.26	43.50	...	79.825	E	Observed for Σ 744.
257	59.5	59.1	12.98	13.02	5.5 7.0	79.658	H	Upper side of trapezium.
258	312.1	311.5	12.76	12.86	... 7.0	79.658	H	Dis. observed with bright field.
259	299.4	298.9	19.05	19.15	... 8.0	79.658	H	Right hand side of trapezium.
260	347.1	345.2	3.43	3.53	... 11.0	79.658	H	
261	350.7	350.5	...	...	...	79.771	E	
262	350.8	350.5	...	...	...	79.735	E	
263	32.0	31.4	8.31	8.35	...	79.658	H	Lower side of trapezium.
264	142.9	142.2	11.12	11.22	...	79.658	H	
265	41.5	39.7	...	...	...	79.825	E	Too faint for distance.
266	288.2	286.3	5.16	5.40	...	79.735	E	
267	317.0	315.7	5.75	5.85	8.5 9.0	79.658	H	
268	323.4	322.9	29.99	30.09	8.0 8.5	79.658	H	
269	319.8	318.6	5.55	5.65	8.0 9.0	79.658	H	
270	152.7	152.6	2.64	2.56	4.0 5.0	79.784	S	{ Distance observed without illumination.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
271	Σ 774 (continued.)	...	325 5	330 35	175 30	...	...	—0.5	n	I
272	...	...	330 5	331 0	175 42	40.368	39.615	—2.0	n	III
273	Σ 790	5 40	265 45	267 0	175 30	40 543	38.440	—0.8	p	III
274	Σ 839	5 59	278 50	280 10	355 30	41.206	39.764	—0.4	p	A
275	...	...	283 55	284 5	355 42	40.229	38.751	—0.8	p	III
276	Σ 871	6 5	300 5	300 50	355 42	40.588	38.424	—0.9	n	A
277	H iv 81	6 31	258 10	258 25	355 30	42.034	36.951	—0.9	p	A
278	A. G. C. 1	6 40	41 55	42 25	355 42	...	...	—1.0	n	A
279	...	...	41 30	41 55	355 42	41.996	38.982	—1.1	p	A
280	Σ 1011	6 55	295 30	294 30	335 42	40.136	38.831	—1.4	p	III
281	h 750	7 0	269 30	268 0	175 30	40.729	38.270	—1.4	p	III
282	h 2362	7 2	184 35	184 10	355 30	43.674	35.319	—2.0	p	A
283	Σ 1034	7 4	192 20	190 50	175 30	39.903	39.108	—1.2	n	III
284	Σ 1045	7 7	225 15	226 0	355 30	40.357	38.688	—1.1	p	A
285	h 3938	7 9	246 10	246 5	355 30	42.391	36.568	—1.0	p	III
286	Σ 1056	7 10	115 50	116 5	175 30	...	...	—1.9	n	A
287	Σ 1103	7 24	240 50	239 50	355 30	40.125	38.860	—1.1	p	A
288	β 201	7 34	324 0	327 8	355 30	40 917	40 076	—0.4	n	A
289	Σ 1124	7 34	140 5	140 25	175 30	42.427	37.710	—1.5	n	III
290	Σ 1146	7 42	189 35	190 5	175 30	39.921	38.989	—0.8	n	A
291	...	...	191 10	191 50	175 30	39.913	39.006	—0.9	p	A
292	0 Σ 182	7 46	212 30	212 5	175 30	39.684	39.312	—1.2	p	A
293	β 334	8 2	349 45	350 5	355 30	...	...	—0.1	n	A
294	H. A. H. 9	8 12	287 0	290 5	355 30	40.962	40.006	—0.2	p	A
295	Σ 1216	8 15	337 10	345 30	175 30	...	...	+0.1	n	A
296	Σ 1260	8 35	297 5	297 10	355 30	40.218	38.766	—0.1	p	P
297	β 587	8 46	326 10	327 30	175 30	...	...	—0.1	n	A
298	Σ 1295	8 50	353 0	354 5	355 30	40.102	39.864	+0.1	n	A
299	β 210	8 51	358 15	359 30	178 13	40.890	40.140	—0.3	n	A
300	...	...	359 40	359 15	178 13	40.905	40.123	—0.4	n	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
271	152.3	...	...	...	3.5 5.5	79.784	S	
272	154.8	152.6	2.57	2.67	...	79.658	H	Dark wires.
273	90.9	89.0	7.18	7.42	...	79.787	E	
274	284.0	284.5	4.92	4.92	8.0 8.2	79.784	S	
275	288.3	286.4	5.04	5.28	...	79.735	E	
276	305.0	304.9	7.39	7.38	...	79.787	E	
277	262.8	261.1	17.35	17.47	...	79.787	E	Definition poor.
278	46.5	46.8	...	...	...	79.752	S	No illumination.
279	46.0	46.2	10.29	10.29	1.0 7.0	79.752	S	No illumination.
280	299.3	297.3	4.45	4.69	9.0 9.5	79.735	E	
281	93.2	91.4	8.39	8.63	...	79.771	E	
282	188.9	187.2	28.51	28.63	...	79.825	E	
283	16.1	15.6	2.71	2.70	...	79.771	E	
284	230.1	228.3	5.70	5.82	...	79.787	E	Definition poor.
285	250.6	248.8	19.87	20.11	...	79.771	E	
286	300.5	300.3	...	...	...	79.825	E	Too blurry for distance.
287	244.8	243.0	4.32	4.44	...	79.771	E	
288	330.1	330.8	2.87	2.79	7.0 8.0	80.155	S	Very windy.
289	324.8	324.7	19.50	19.49	...	79.815	E	{ Poor definition; Mic. II assumed 36.710 in reduction.
290	14.3	14.1	3.18	3.17	...	79.771	E	
291	16.0	14.1	3.10	3.22	...	79.771	E	
292	36.8	34.7	1.27	1.39	...	79.771	E	
293	354.4	354.2	...	...	...	80.177	E	
294	293.0	293.6	3.26	3.26	8.5 9.0	80.223	S	
295	165.8	166.4	0.6e	0.62	...	80.223	S	Clearly separated.
296	301.6	...	4.96	...	...	80.218	E	
297	151.3	152.2	0.4e	0.42	5.0 8.0	80.223	S	{ Perhaps only atmospheric elongation. Mic. II assumed 38.864 in reduction.
298	358.0	357.9	4.22	4.14	7.0 7.5	80.229	S	
299	180.6	180.7	2.56	2.48	7.0 7.0	79.237	S	
300	181.2	181.3	2.67	2.59	6.0 6.0	79.261	S	Both stars white.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
301	Σ 1308	8 59	261 0	261 30	175 30	41.044	37.948	—0.1	p	P
302	h 4172	9 1	30 55	33 35	175 30	41.527	39.445	—0.1	n	A
303	...	...	31 35	34 15	175 30	...	...	0.0	...	...
304	W. M. C. Z.	9 25	53 15	53 30	175 30	...	...	+0.1	n	A
305	β 217	10 1	274 30	274 40	355 30	39.780	39.200	—0.5	p	A
306	...	...	275 45	275 15	355 30	39.782	39.212	—0.8	p	P
307	h 4305	10 15	28 40	31 10	175 30	43.032	37.968	—0.2	n	A
308	β	10 16	273 48	278 10	175 30	...	...	—0.5	p	A
309	Σ 1440	10 24	341 40	344 10	355 30	42.763	38.218	—0.3	n	A
310	h 4337	10 32	249 0	249 30	175 30	40.996	38.010	—0.7	p	A
311	Σ 1474	10 42	12 20	13 50	355 30	41.517	39.482	—0.3	n	P
312	...	...	192 30	193 0	175 30	41.487	39.494	—0.8	n	I
313	Σ 1500	10 54	308 25	310 20	355 30	40.714	40.268	+0.1	n	A
314	...	...	302 20	307 50	355 30	...	...	—0.3	n	I
315	...	...	307 10	308 30	355 30	40.695	40.282	0.0	p	A
316	...	...	295 20	309 10	355 30	...	...	—0.2	p	I
317	O. S.	10 54	150 40	150 45	175 30	40.448	38.600	—0.6	n	A
318	H i 77	10 56	192 25	192 55	175 30	39.906	39.089	—0.3	p	A
319	Σ 1506	10 59	29 35	30 50	175 30	42.074	38.865	—0.3	n	A
320	...	...	30 55	31 0	175 30	...	...	0.0	n	I
321	...	...	29 5	32 5	175 30	42.068	38.981	—0.2	p	A
322	...	...	28 50	30 50	175 30	...	...	—0.1	p	I
323	β 220	11 7	319 32	318 45	355 30	40.632	40.354	—0.2	n	P
324	Σ 1529	11 13	245 30	246 50	355 30	41.885	39.057	0.0	p	P
325	β 26	11 18	...	...	...	40.848	40.081	0.0	p	A
326	...	...	239 30	241 10	175 30	...	...	—0.1	p	III
327	S 627	11 23	327 0	327 35	355 30	44.635	36.289	—0.2	n	A
328	A, $\frac{1}{2}$ (B+C)	...	325 40	326 0	355 30	44.610	36.345	—0.1	p	A
329	... B, C	...	39 5	40 20	175 30	...	...	+0.4	n	A
330	Jacob 143	11 24	255 15	255 50	175 30	40.681	38.328	—0.2	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
301	o 85.8	o ...	// 10.57	// ...	...	80.218	E	
302	216.8	217.1	7.11	7.03	7.5 8.5	80.223	S	
303	217.4	217.6	...	...	...	80.223	S	
304	237.9	239.0	0.6e	0.62	7.0 8.0	80.223	S	
305	279.1	277.1	1.98	2.10	...	80.218	E	
306	280.0	...	1.94	...	...	80.218	E	
307	214.4	214.5	17.28	17.20	7.3 8.8	80.223	S	
308	100.5	101.4	1.0e	...	8.5 11.0	80.245	S	Principal star white.
309	347.4	347.9	15.51	15.43	7.0 9.0	80.245	S	
310	73.8	72.0	10.19	10.31	8.5 10.0	80.218	E	
311	17.6	...	6.94	...	...	80.215	S	
312	17.2	...	6.80	...	7.0 7.0	80.215	S	
313	313.9	314.6	1.52	1.44	...	80.223	S	
314	309.6	...	...	...	...	80.223	S	
315	312.3	313.0	1.41	1.41	8.0 8.0	80.223	S	Both stars white.
316	306.8	...	...	...	...	80.223	S	
317	335.2	335.1	6.31	6.30	...	80.218	E	Too faint to measure easily.
318	17.2	15.3	2.79	2.91	...	80.218	E	
319	214.7	214.8	10.95	10.87	7.0 9.0	80.245	S	
320	215.5	...	...	...	...	80.245	S	
321	215.1	215.2	10.54	10.54	...	80.245	S	
322	214.3	...	...	...	...	80.245	S	
323	323.6	...	0.95	...	6.0 7.0	80.215	S	
324	250.7	...	9.65	...	6.5 7.5	80.215	S	
325	...	...	2.62	2.62	...	80.333	S	Very poor definition.
326	64.8	65.4	...	...	...	80.333	S	Very poor definition.
327	331.8	331.5	28.48	28.40	6.0 ...	80.294	S	Poor definition; white.
328	330.3	330.8	28.21	28.21	...	80.294	S	
329	224.2	224.9	0.8e	0.82	8.0 9.0	80.294	S	Poor definition; white.
330	80.0	78.2	8.03	8.15	...	80.368	E	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
331	H iii 96	11 26	204 0	204 35	175 30	40.738	38.073	—0.3	n	A
332	...	...	204 50	205 25	175 30	40.682	38.270	—0.2	n	I
333	...	...	205 50	206 25	175 30	40.750	38.150	—0.5	p	A
334	...	...	204 55	205 0	175 30	40.677	38.218	—0.2	p	I
335	β 456	11 31	249 50	249 0	355 30	...	...	0.0	p	A
336	h 4478	11 47	340 0	341 35	355 30	40.764	40.206	0.0	n	A
337	...	...	338 50	341 40	355 30	40.798	40.191	—0.4	...	...
338	h 4479	11 47	268 40	269 15	175 30	40.504	38.488	—0.3	n	A
339	h 4481	11 51	192 5	193 5	355 30	...	...	...	n	A
340	Σ 1593	11 57	11 50	15 40	355 30	40.702	40.285	—0.3	n	A
341	h 4496	12 0	203 20	203 20	175 30	41.280	37.713	—0.2	n	A
342	Σ 1605	12 4	272 50	273 20	355 30	42.986	36.998	—0.1	p	A
343	Σ 3080	12 5	193 20	196 40	355 30	...	...	—0.2	n	A
344	Σ 1635	12 15	348 40	349 45	175 30	42.428	38.488	—0.2	n	A
345	O. S. 71	12 19	324 50	327 0	355 30	42.485	38.519	—0.2	n	A
346	Sh 145	12 24	209 35	209 25	355 30	43.063	35.900	—0.2	n	A
347	Σ 1649	12 25	190 5	190 50	355 30	41.725	38.209	—0.4	n	A
348	Σ 1664	12 32	244 0	244 45	355 30	43.620	37.367	—0.6	p	A
349	...	...	243 50	243 50	355 30	...	...	—0.2	p	I
350	β 607	12 35	311 20	313 20	355 30	40.665	40.326	—0.1	n	A
351	...	...	305 55	307 30	355 30	40.652	40.337	0.0	p	A
352	Σ 1670	12 36	331 55	333 10	175 30	41.262	39.710	—0.4	n	A
353	...	...	332 5	332 45	175 30	41.281	39.711	—0.9	n	P
354	...	...	331 5	332 55	175 30	41.383	39.716	—0.6	n	I
355	...	...	152 40	153 20	355 30	40.219	38.709	—1.0	n	A
356	...	...	332 35	332 15	175 30	40.237	38.741	—0.1	n	A
357	...	...	151 40	152 0	335 30	40.252	38.776	—0.3	n	A
358	...	...	152 0	153 30	355 30	40.213	38.738	—0.3	n	A
359	...	...	332 20	332 5	175 30	40.178	38.818	—0.1	n	I
360	...	...	153 10	152 40	355 30	40.060	38.943	—0.8	n	I

Number.	Position Angle.		Distance.		Magnitudes.		Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.					
331	° 28.8	° 28.7	° 9.10	° 9.09	...	...	80.218	E	
332	29.6	...	8.23	...	...	...	80.218	E	
333	30.6	28.8	8.87	8.99	...	...	80.218	E	
334	29.5	...	8.39	...	...	...	80.218	E	
335	253.9	255.2	0.7e	0.72	9.5	9.5	80.245	S	
336	345.3	345.4	1.90	1.82	4.0	5.0	80.245	S	
337	344.8	344.8	2.07	1.99	5.0	7.0	80.223	S	{ Disturbed by atmospheric elongation; principal star white.
338	93.5	93.4	6.88	6.87	8.0	9.5	80.360	E	
339	197.1	196.9	...	...	...	...	80.368	E	Too blurry for distance.
340	18.2	18.7	1.42	1.34	8.0	8.0	80.333	S	Poor definition.
341	27.8	27.8	12.17	12.16	8.0	9.0	80.360	E	
342	277.6	277.8	20.44	23.85	7.8	8.8	80.294	S	{ Mic. I assumed 43.986 in reduction.
343	199.5	199.6	5.e	...	8.0	9.5	80.349	S	
344	173.7	173.5	13.45	13.37	7.5	8.5	80.349	S	Both stars white.
345	330.4	330.0	13.54	13.46	8.0	10.5	80.333	S	{ Poor definition; principal star white.
346	214.0	214.0	24.44	24.43	4.0	9.0	80.360	E	
347	195.0	194.9	12.00	15.40	...	...	80.223	E	{ Mic. II assumed 37.209 in reduction.
348	248.9	249.2	21.34	21.34	7.0	8.5	80.322	S	
349	248.3	...	...	...	...	...	80.322	S	Color of principal star 2.10.
350	316.8	316.9	1.16	1.08	...	...	80.341	S	
351	311.2	312.1	1.08	1.08	9.0	11.0	80.341	S	
352	157.0	156.9	5.30	5.22	Diff.=0.2	...	80.376	S	Colors 5.18 5.18.
353	156.9	...	5.36	...	...	...	80.215	S	
354	156.5	...	5.69	...	...	...	80.376	S	
355	157.5	157.4	5.15	5.14	...	...	80.218	E	Miserable definition.
356	156.9	156.8	5.10	5.09	...	...	80.360	E	
357	156.3	156.2	5.04	5.03	...	...	80.371	E	
358	157.2	157.1	5.04	5.03	...	...	80.376	E	
359	156.7	...	4.64	...	...	...	80.360	E	
360	157.4	...	3.81	...	=	...	80.376	E	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
361	O. S.	12 40	270 25	270 0	358 17	40.882	...	0.0	p	A
362	Σ 1690	12 50	323 15	323 20	175 30	41.364	39.604	-0.1	n	A
363	...	...	320 5	321 20	175 30	...	...	0.0	p	A
364	0 Σ 256	12 50	243 25	243 40	355 30	39.588	39.385	-0.2	p	A
365	O. S.	12 52	239 5	240 35	175 30	40.788	40.196	-0.2	n	A
366	...	...	239 20	240 25	175 30	40.818	40.200	-0.2	p	A
367	...	...	239 35	240 15	175 30	...	...	0.0	p	I
368	...	...	243 30	242 55	175 30	39.781	39.218	-0.4	p	A
369	Σ 1704	12 53	227 20	229 0	175 30	33.505	27.472	-0.4	p	A
370	A. G. C. 5	12 54	325 45	326 45	175 30	40.683	40.293	-0.2	n	A
371	...	...	323 40	323 35	175 30	...	...	-0.1	p	A
372	...	...	146 45	148 30	355 30	39.644	39.262	0.0	...	...
373	β	12 58	224 40	226 10	355 30	...	...	-0.1	p	VI
374	β 609	13 5	172 15	173 5	175 30	...	...	-0.2	n	A
375	...	...	348 20	351 20	355 30	...	...	...	...	...
376	β 221	13 7	217 45	224 30	175 30	40.733	40.253	-0.2	n	A
377	...	...	219 35	223 50	175 30	40.707	40.270	-0.3	p	A
378	H ii 45	13 7	207 50	209 10	175 30	41.272	39.714	-0.4	n	A
379	...	...	29 0	29 20	355 30	41.330	39.683	-0.3	n	I
380	...	...	207 10	209 0	175 30	...	...	-0.4	p	A
381	...	...	29 15	29 45	355 30	...	...	-0.4	p	I
382	...	...	210 30	210 55	175 30	40.230	38.688	-0.5	p	A
383	...	...	210 5	210 30	175 30	40.218	38.744	-0.2	p	A
384	β 342	13 9	27 20	30 10	355 30	41.086	39.908	+0.4	n	A
385	...	...	...	...	...	41.053	39.918	+0.4	n	A
386	...	...	27 20	29 35	355 30	...	...	+0.4	p	A
387	...	...	210 50	211 30	175 30	40.108	38.917	-0.3	n	A
388	...	...	210 0	211 0	175 30	40.073	38.921	-0.3	p	A
389	O. S.	13 9	329 0	329 0	355 30	...	...	-0.2	n	A
390	O. S.	13 15	168	177	358 13	...	...	-2.5	p	VI

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
361	271.9	272.4	2.6	...	9.0 9.5	79.355	S	
362	147.8	147.5	6.01	5.93	7.5 9.0	80.322	S	
363	145.2	145.8	...	...	...	80.322	S	
364	248.0	245.6	0.69	0.81	...	80.371	E	
365	64.3	64.9	2.02	1.94	8.0 8.0	80.333	S	Poor definition.
366	64.4	64.8	2.11	2.11	7.5 8.0	80.349	S	Both stars white.
367	64.4	...	...	...	...	80.349	S	
368	67.7	65.7	1.92	2.04	...	80.223	E	
369	52.7	52.9	20.59	20.59	6.0 10.0	80.363	S	
370	150.8	150.9	1.33	1.25	6.0 8.0	80.376	S	
371	148.1	149.0	...	...	...	80.376	S	
372	152.1	151.6	1.30	1.29	...	80.376	E	Unsatisfactory.
373	229.9	227.3	0.6e	0.62	...	80.346	E	
374	357.2	357.7	0.8e	0.82	7.0 10.0	80.338	S	Principal star white.
375	354.3	354.7	...	...	...	80.341	S	
376	45.6	46.2	1.64	1.56	...	80.363	S	
377	46.2	46.7	1.49	1.49	8.0 10.0	80.363	S	
378	33.0	33.2	5.32	5.24	...	80.366	S	Poor definition.
379	33.7	...	5.62	...	...	80.366	S	
380	32.6	32.8	...	...	...	80.366	S	Poor definition.
381	34.0	...	...	...	...	80.366	S	
382	35.2	33.4	5.26	5.38	...	80.223	E	
383	34.8	33.0	5.03	5.15	...	80.371	E	
384	33.2	33.4	4.02	3.94	8.0 8.5	80.379	S	
385	...	...	3.87	3.79	...	80.379	S	
386	33.0	33.2	...	...	...	80.379	S	
387	35.7	35.6	4.06	4.05	...	80.379	E	
388	35.0	33.2	3.93	4.05	8.0 8.5	80.379	E	
389	333.5	333.5	...	...	8.0 10.0	80.360	E	Too faint for distance.
390	174.3	175.1	0.4e	0.42	7.5 7.5	79.300	S	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
391	Σ 1742	13 18	344 50	347 50	355 30	40.687	40.279	—0.1	n	A
392	...	...	336 20	349 20	355 30	...	...	0.0	n	I
393	...	...	166 35	166 10	175 30	39.672	39.285	—0.2	n	A
394	...	...	166 10	165 55	175 30	39.630	39.334	—0.1	n	A
395	O. S.	13 20	347 50	351 20	355 30	40.750	40.270	—0.1	n	A
396	h 2653	13 23	231 15	233 45	355 30	43.506	37.414	—0.1	p	A
397	β 114	13 28	312 0	314 20	175 30	40.764	40.249	—0.2	n	A
398	...	...	314 40	315 30	175 30	...	...	—0.3	n	A
399	...	...	310 5	312 0	175 30	...	...	0.0	n	I
400	...	...	309 0	310 50	175 30	40.695	40.305	—0.1	p	A
401	...	...	309 55	311 0	175 30	...	...	—0.2	p	A
402	...	...	304 55	309 25	175 30	...	...	+0.1	p	I
403	H n 69	13 30	6 40	8 40	175 30	42.003	39.003	+0.1	n	A
404	...	...	187 10	187 35	355 30	40.962	38.048	—0.5	n	A
405	O. S.	13 31	256 50	259 35	355 30	41.160	39.819	+0.1	p	A
406	Σ 1763	13 31	215 40	216 40	175 30	40.949	40.055	+0.1	n	A
407	...	...	214 5	217 5	175 30	40.972	40.056	—0.1	n	I
408	...	...	216 5	216 50	175 30	40.916	40.070	0.0	p	A
409	...	...	215 5	214 10	175 30	40.930	39.990	—0.1	p	I
410	h 4604	13 34	273 50	275 50	355 30	42.764	38.233	—0.3	p	A
411	...	...	276 40	276 10	355 30	41.807	38.208	0.0	p	A
412	...	...	275 40	275 15	355 30	41.766	38.332	—0.3	p	A
413	h 2671	13 37	247 0	246 45	175 30	43.576	35.423	—0.1	p	A
414	...	...	247 0	247 45	175 30	43.495	35.399	—0.2	p	A
415	h 2674	13 38	180 55	180 30	175 30	42.811	38.089	—0.2	n	A
416	Σ 3081	13 39	240 10	244 55	175 30	40.770	40.170	+0.1	p	A
417	...	...	245 30	245 40	175 30	39.752	39.172	—0.3	p	A
418	β A,B	13 40	296 25	298 5	355 30	...	...	+0.2	n	A
419	...	...	296 35	296 55	355 30	40.230	39.750	+0.4	n	A
420	...	...	292 25	294 25	355 30	40.208	39.753	+0.3	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
391	350.8	351.0	1.39	1.31	7.5 8.0	80.363	S	
392	347.3	...	...	...	...	80.363	S	
393	350.9	350.4	1.32	1.31	...	80.223	E	
394	350.5	350.0	1.01	1.00	...	80.346	E	
395	354.1	354.2	1.64	1.56	8.0 9.0	80.349	S	
396	237.0	237.2	20.79	20.79	8.0 12.0	80.338	S	Principal star white.
397	137.7	137.6	1.76	1.68	7.8 8.0	80.322	S	
398	139.6	139.5	...	...	8.0 8.0	80.333	S	Poor definition.
399	135.5	...	...	...	...	80.333	S	
400	134.4	135.2	1.33	1.33	...	80.322	S	
401	135.0	135.8	...	...	...	80.333	S	Poor definition.
402	131.7	...	...	...	...	80.333	S	
403	192.2	192.2	10.24	10.16	6.8 7.8	80.376	S	
404	191.9	191.8	9.94	9.93	6.0 7.5	80.376	E	Both stars white.
405	262.7	263.1	4.58	4.58	8.5 11.0	80.423	S	
406	40.7	41.1	3.05	2.97	...	80.366	S	Poor definition.
407	40.1	...	3.13	...	...	80.366	S	
408	41.0	41.3	2.89	2.89	7.0 8.0	80.366	S	Poor definition.
409	39.1	...	3.21	...	...	80.366	S	
410	279.3	279.6	15.46	15.46	8.0 10.0	80.420	S	
411	280.9	279.2	15.70	15.82	9.0 11.0	80.346	E	
412	280.0	278.3	15.13	15.25	8.0 10.5	80.360	E	Very poor definition.
413	71.4	69.7	27.82	27.94	9.0 9.5	80.360	E	
414	71.9	70.2	27.63	27.75	9.0 10.0	80.398	E	
415	5.2	5.2	16.12	22.93	8.0 9.0	80.423	E	{ Mic. readings changed 2 rev. in reduction.
416	67.0	67.4	2.05	2.05	8.0 8.5	80.442	S	
417	70.1	68.1	1.98	2.10	...	80.223	E	
418	301.8	301.5	...	...	...	80.420	S	
419	301.2	300.4	1.64	1.69	...	80.420	H	
420	297.9	297.7	1.55	1.57	...	80.420	H	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
421	h 4617	13 44	253 30	255 35	355 30	40.187	39.816	—0.1	p	A
422	h 4637	13 51	313 5	313 30	175 30	41.418	37.632	—0.5	n	A
423	...	...	215 25	214 10	175 30	41.383	37.594	—0.1	p	A
424	β 344	13 52	300 20	303 15	175 30	40.983	39.988	—0.2	n	A
425	...	...	296 10	297 35	175 30	40.977	39.988	—0.1	p	A
426	h 4650	14 0	237 20	238 0	175 30	...	...	—0.1	p	A
427	h 4661	14 5	222 20	224 50	175 30	...	...	—0.2	p	A
428	...	...	227 0	226 45	175 30	...	...	—0.2	p	A
429	h 4664	14 8	191 15	191 10	175 30	42.100	36.896	—0.1	n	A
430	...	...	190 25	189 40	175 30	42.102	36.882	—0.4	n	A
431	...	...	190 0	189 25	175 30	42.062	37.864	—0.2	n	A
432	H. A. H. 27	14 11	246 55	248 0	175 30	41.342	39.589	—0.4	p	A
433	β 116	14 13	275 10	276 15	355 30	39.914	39.048	—0.4	p	A
434	Σ 1833	14 16	162 25	163 20	175 28	40.321	38.706	0.0	n	A
435	O. S.	14 18	262 40	268 30	355 30	...	...	—0.5	p	A
436	...	...	277 45	278 35	355 30	...	...	—0.4	p	A
437	β 225	14 19	273 10	275 25	175 30	40.709	40.320	—0.2	p	A
438	...	...	280 10	280 10	175 30	39.659	39.284	—0.3	p	A
439	Σ 1847	14 22	253 45	254 25	355 30	42.911	36.136	—0.2	p	A
440	...	...	254 30	255 0	355 30	42.788	36.136	+0.2	p	I
441	H. V. E.	14 23	193 25	195 40	175 30	41.032	39.957	—0.2	n	A
442	...	...	10 50	14 10	355 30	41.043	39.973	—0.1	...	...
443	...	...	194 45	195 20	355 30	40.091	39.905	—0.8	n	A
444	...	...	194 25	194 50	355 30	40.020	39.939	—0.1	n	A
445	...	...	193 35	195 50	355 30	40.039	38.973	—0.3	n	A
446	β 117	14 25	266 30	267 30	175 30	40.833	40.128	—0.1	p	A
447	h 2723	14 25	132 35	132 45	355 30	43.496	35.514	0.0	n	A
448	W. M. C. Z.	14 30	286 0	286 25	175 30	43.490	37.517	—0.2	p	A
449	...	...	288 20	289 0	175 30	42.384	36.578	—0.1	p	A
450	β 226	14 32	256 30	259 5	175 30	40.634	40.349	0.0	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
421	° 259.0	° 259.7	// 1.27	// 1.27	8.0 10.0	80.338	S	Principal star white.
422	137.8	137.8	12.92	12.91	...	80.371	E	Distance unsatisfactory.
423	139.3	137.6	12.93	13.05	9.0 9.5	80.376	E.	
424	126.3	126.0	3.40	3.32	8.0 9.0	80.330	S	
425	121.4	122.0	3.38	3.30	...	80.330	S	
426	62.2	60.5	...	...	9.0 12.0	80.346	E	Comp. too faint for distance.
427	48.1	48.5	...	...	...	80.363	S	{ Too poor definition for distance.
428	51.4	49.4	...	...	...	80.398	E	
429	15.7	15.7	17.76	17.75	8.5 9.0	80.346	E	
430	14.5	14.5	17.82	17.81	...	80.371	E	
431	14.2	14.2	14.33	17.73	8.0 9.0	80.423	E	{ Mic. II assumed 36.864 in reduction.
432	72.0	72.4	5.99	5.99	8.0 9.0	80.349	S	
433	280.2	278.3	2.96	3.08	...	80.368	E	Poor definition.
434	167.4	167.3	5.51	5.50	6.0 6.5	80.448	E	
435	270.1	271.0	0.8e	0.82	8.0 9.5	80.379	S	
436	282.7	280.1	...	...	8.0 9.0	80.379	E	
437	98.8	99.5	1.33	1.33	8.0 9.0	80.376	S	
438	104.7	102.6	1.28	1.40	8.0 9.5	80.376	E	
439	258.6	256.9	23.12	23.24	...	80.366	E	{ Poor definition; distance unsatisfactory.
440	259.2	...	22.70	...	...	80.366	E	
441	19.0	19.1	3.67	3.59	8.7 9.2	80.371	S	
442	17.0	17.1	3.65	3.57	8.5 9.0	80.379	S	
443	199.5	199.4	4.05	4.04	...	80.223	E	{ Mic. II. assumed 38.905 in reduction. Very faint; Mic. II. assumed 38.939 in reduction.
444	199.1	199.0	3.69	3.68	...	80.322	E	
445	199.2	199.1	3.64	3.63	8.5 10.0	80.379	E	
446	91.5	92.0	2.41	2.41	7.5 8.5	80.330	S	
447	137.2	137.2	27.24	27.23	8.0 10.5	80.407	E	
448	110.7	111.1	20.38	20.38	7.0 8.0	80.360	S	Both stars white.
449	113.2	111.5	19.81	19.93	9.0 9.5	80.349	E	Companion difficult to see.
450	82.3	83.1	0.97	0.97	8.0 8.0	80.338	S	Both stars white.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
451	β 345	14 35	292 10	295 35	355 30	40.633	40.367	0.0	p	A
452	Σ 1869	14 36	307 35	307 45	175 30	44.300	36.680	—0.1	n	A
453	...	...	306 5	306 20	175 30	44.285	36.701	0.0	p	A
454	Sh 184	14 39	305 5	305 50	175 30	41.827	39.195	—0.4	n	A
455	...	...	303 30	304 50	175 30	41.788	39.180	—0.3	p	A
456	Σ 1876	14 40	247 50	249 0	175 30	39.653	39.320	—0.1	p	A
457	S 663	14 42	328 50	334 0	355 30	40.817	40.169	0.0	n	A
458	...	...	333 55	334 55	355 30	39.809	39.179	+0.3	n	A
459	β 118	14 47	305 5	305 10	355 30	39.772	39.207	—0.2	p	A
460	h 4716	14 49	352 40	353 40	355 30	40.951	40.073	—0.5	n	A
461	Sh 190	14 50	287 15	286 15	355 30	41.686	37.252	—0.1	p	A
462	β 239	14 52	304 35	306 40	355 30	40.632	40.336	—0.3	n	A
463	...	...	292 20	300 25	355 30	40.632	40.338	—0.4	p	A
464	...	...	305 48	308 15	355 30	39.623	39.378	0.0	n	A
465	...	...	304 0	304 55	355 30	39.612	39.366	—0.1	p	A
466	h 2757	14 52	266 30	268 55	175 30	42.276	38.711	—0.1	p	A
467	...	...	272 40	273 5	175 30	41.240	38.710	0.0	p	A
468	Σ 1899	14 55	244 45	245 0	178 13	44.202	35.742	—0.4	p	A
469	...	...	253 40	254 45	185 38	43.657	35.252	—0.7	p	A
470	Σ 3090	15 3	269 10	272 5	355 30	40.726	40.269	—0.4	p	A
471	...	...	274 5	275 20	355 30	39.709	39.263	—0.2	p	A
472	β 350	15 8	330 50	334 50	175 30	40.690	40.305	—0.1	n	A
473	β 352	15 11	239 20	241 55	175 30	42.612	38.368	0.0	n	A
474	...	...	238 10	239 20	175 30	42.548	38.360	—0.1	p	A
475	...	...	243 45	243 30	175 30	41.589	37.384	0.0	p	A
476	β 227	15 12	355 20	355 45	175 30	40.767	40.187	—0.1	...	...
477	h 4767	15 18	317 45	317 35	175 30	44.330	44.776	—0.4	n	A
478	...	...	318 0	317 10	175 30	44.281	34.714	0.0	n	A
479	H. V. E.	15 18	203 20	204 5	175 30	41.863	37.156	—0.5	n	A
480	h 4769	15 18	188 10	188 25	355 30	40.884	38.122	—0.2	n	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
451	298.4	299.4	0.90	0.90	7.8 8.5	80.420	S	
452	132.2	131.7	26.00	25.92	8.3 9.3	80.442	S	
453	130.7	131.1	25.88	25.88	...	80.442	S	
454	130.0	129.6	8.98	8.90	5.0 7.0	80.423	S	
455	128.7	129.2	8.90	8.90	...	80.423	S	
456	72.9	70.7	1.14	1.26	...	80.322	E	
457	335.9	335.8	2.21	2.13	8.5 11.5	80.376	S	
458	338.9	338.6	2.15	2.14	9.0 11.5	80.376	E	
459	309.6	307.6	1.93	2.05	9.0 10.0	80.346	E	Poor definition.
460	357.7	357.8	3.00	2.92	9.0 10.0	80.445	S	Hazy.
461	291.2	289.5	15.13	15.25	8.0 9.5	80.349	E	Windy.
462	310.1	310.1	1.01	0.93	...	80.379	S	
463	300.9	301.8	1.00	1.00	6.0 7.0	80.379	S	Distance estimated 0".6.
464	311.5	310.9	0.84	0.83	...	80.379	E	
465	309.0	306.7	0.84	0.96	...	80.379	E	
466	92.2	92.5	12.17	12.17	7.5 9.0	80.360	S	Principal star white.
467	97.4	95.7	12.05	12.17	9.0 10.5	80.346	E	{ Mic. II. assumed 37.710 in reduction.
468	66.6	66.3	28.87	28.89	7.0 10.0	79.251	H	
469	68.6	66.9	28.68	28.80	6.0 10.0	79.357	E	
470	275.1	275.7	1.56	1.56	8.0 8.0	80.371	S	
471	279.2	277.1	1.52	1.64	...	80.322	E	
472	157.4	157.5	1.31	1.23	7.0 8.0	80.445	S	
473	65.1	65.5	14.48	14.40	...	80.360	S	Poor definition.
474	63.2	63.5	14.29	14.29	7.0 9.0	80.360	S	Principal star white.
475	68.1	66.4	14.35	14.47	8.5 9.0	80.346	E	
476	180.0	180.2	1.98	1.90	7.0 9.5	80.423	S	{ Poor definition; principal star white.
477	142.2	142.2	32.61	32.60	...	80.366	E	
478	142.1	142.1	32.65	32.64	9.0 10.0	80.407	E	{ Poor definition; distance unsatisfactory.
479	28.2	28.2	16.06	16.05	8.5 10.5	80.398	E	
480	192.8	192.7	9.43	9.42	8.5 9.5	80.349	E	Poor definition.

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
481	h 4769 (continued)	h. m. 15 18	° / 187 15	° / 188 0	° / 355 30	r. 40.885	r. . 38.090	—0.3	n	A
482	h 4774	15 22	0 25	3 30	355 30	41.810	39.140	—0.1	n	A
483	...	...	...	...	...	41.883	39.131	—0.3	...	...
484	Arg.S. 54 A,B	15 34	198 20	198 25	175 30	44.759	34.304	—0.2	n	A
485	... A,C	...	143 35	143 30	175 30	...	...	—0.1	n	A
486	... A,D	...	137 40	137 0	175 30	52.422	26.348	—0.2	p	A
487	h 4807	15 41	354 50	0 5	355 30	42.015	38.960	—0.2	n	A
488	β 36	15 46	272 35	273 0	355 30	39.906	39.122	—0.4	p	A
489	Sh 213	15 52	313 25	316 10	355 30	43.093	37.858	—0.2	n	A
490	...	...	313 10	314 25	355 30	43.112	37.897	—0.1	p	A
491	...	...	315 35	315 35	355 30	42.112	36.904	—0.7	n	A
492	...	...	315 15	315 10	355 30	42.094	36.868	0.0	p	A
493	h 4826	15 55	239 35	244 25	355 30	41.224	39.749	—0.3	p	A
494	...	...	246 45	245 40	355 30	40.218	38.789	—0.3	p	A
495	β 38	15 56	166 40	167 30	175 28	40.086	38.889	—0.9	n	A
496	Σ 1998 A,B	15 58	183 45	184 15	355 30	39.668	39.268	—0.8	n	A
497	...	...	186 45	184 30	355 30	39.622	39.364	—0.7	n	A
498	... A,C	...	249 50	250 15	175 30	40.510	38.477	—0.6	p	A
499	β 39	16 1	250 35	252 50	355 30	40.953	40.011	—0.2	p	A
500	...	...	251 15	252 25	355 28	40.948	40.011	—0.6	p	A
501	h 4839	16 5	248 50	251 55	175 30	41.160	39.813	—0.1	p	A
502	...	...	255 50	256 45	175 30	40.078	38.908	—0.2	p	A
503	β 120 A,B	16 5	178 35	176 15	175 30	...	...	—0.2	n	A
504	... C,D	...	220 30	220 55	175 30	39.782	39.212	—0.3	p	A
505	Σ 2023	16 9	227 45	225 45	355 30	...	...	—0.1	n	A
506	β 624	16 16	316 25	317 30	355 30	...	...	—0.4	n	A
507	O. S.	16 20	157 18	161 52	175 30	41.804	39.116	+0.1	n	A
508	Σ 2046	16 20	221 55	223 50	358 13	41.726	39.298	—3.3	n	A
509	Σ 3105	16 25	217 15	218 28	175 30	...	...	0.0	p	A
510	...	...	219 35	220 35	175 30	...	...	+0.2	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
481	o 192.1	o 192.0	// 9.54	// 9.53	8.0 9.5	80.398	E	Principal star white.
482	6.5	6.5	9.11	9.03	6.0 10.0	80.338	S	
483	...	...	9.39	9.31	7.5 10.0	80.437	S	
484	22.9	22.9	35.68	35.67	8.5 9.0	80.349	E	
485	328.0	328.0	60.e	...	... 10.5	80.349	E	Too faint for distance.
486	321.8	320.1	88.98	89.10	... 9.5	80.349	E	Distance unsatisfactory.
487	2.0	1.9	10.43	10.35	8.0 11.0	80.442	S	
488	277.3	275.4	2.68	2.80	5.0 7.5	80.379	E	
489	319.3	318.9	17.87	17.79	8.0 9.0	80.376	S	
490	318.3	318.8	17.80	17.80	...	80.376	S	
491	320.1	320.1	17.77	17.76	8.0 8.3	80.376	E	
492	319.7	318.0	17.84	17.96	...	80.376	E	
493	246.5	246.8	5.03	5.03	9.0 9.5	80.423	S	{ Poor definition; both stars white.
494	250.8	249.0	4.88	5.00	9.0 10.0	80.420	E	
495	351.6	351.5	4.08	4.07	8.5 10.0	80.478	E	Poor definition.
496	188.5	188.0	1.37	1.36	...	80.322	E	Became very blurry.
497	190.1	189.6	0.88	0.87	...	80.398	E	
498	74.5	72.7	6.94	7.06	...	80.398	E	
499	256.2	256.7	3.21	3.21	5.0 8.8	80.442	S	{ Windy during measure of distance.
500	256.4	256.9	3.20	3.20	6.0 9.0	80.478	S	{ Poor definition. Color of principal star 2.22.
501	74.9	75.4	4.60	4.60	6.0 8.5	80.423	S	
502	80.8	79.0	3.99	4.11	6.0 8.0	80.420	E	
503	1.9	1.0	...	...	...	80.398	E	Only elongated.
504	45.2	43.2	1.95	2.07	...	80.398	E	
505	231.2	230.8	...	...	...	80.322	E	Too poor definition for distance.
506	321.5	320.9	1.e	...	...	80.379	E	
507	344.1	344.0	9.17	9.09	8.0 11.0	80.420	S	
508	224.6	224.3	8.29	8.21	9.0 10.0	79.313	S	
509	42.4	43.5	0.7e	0.72	8.0 8.0	80.376	S	
510	44.6	41.9	...	...	8.0 8.5	80.376	E	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
511	Σ 3106	16 49	240 30	241 40	175 28	...	...	—0.7	p	A
512	...	...	243 5	244 15	355 30	39.822	39.189	—0.6	p	A
513	Sh 240	16 50	227 5	228 0	355 31	41.198	39.782	—0.2	p	A
514	...	...	226 30	226 40	355 30	40.188	38.798	—0.7	p	A
515	h 4902	16 50	24 35	26 0	355 28	42.129	38.849	0.0	n	A
516	...	...	204 45	205 55	175 28	...	...	—0.1	p	A
517	h 589	17 3	297 50	298 10	355 28	40.902	38.072	—0.5	p	A
518	Σ 2132	17 6	289 2	284 52	175 30	...	...	—1.6	n	A
519	...	...	285 5	281 35	175 30	...	...	—1.6	...	...
520	Sh 243	17 8	16 10	18 0	355 31	41.125	39.864	—0.3	n	A
521	...	...	16 45	18 50	355 31	41.149	39.842	0.0	n	I
522	β 282	17 8	327 30	330 20	175 28	41.125	39.857	+0.2	n	A
523	h 4932	17 9	223 20	223 30	355 28	40.921	38.027	—0.1	p	A
524	O. S.	17 11	285 30	285 5	355 30	41.941	36.994	—0.9	p	A
525	...	...	286 30	287 10	355 31	41.932	37.061	—0.1	p	A
526	O. S.	17 14	216 15	220 35	175 30	...	...	—0.1	n	A
527	...	...	218 35	220 35	175 30	...	...	—0.2	p	A
528	h 4953	17 19	169 25	170 5	355 30	42.152	36.821	—0.8	n	A
529	...	...	170 15	169 10	355 30	42.142	36.832	—0.1	n	A
530	Arg. S. 66	17 23	10 0	11 5	175 30	40.731	38.248	—0.6	n	A
531	Σ 2173	17 24	294 30	294 15	...	...	...	—0.2	p	VI
532	...	...	294 0	296 30	...	...	...	—0.3	p	A
533	Σ 2183 rej. A, B	17 29	8 15	9 35	355 30	44.643	36.328	0.0	n	A
534	Σ 2191	17 34	266 45	265 45	358 17	43.397	35.523	—0.3	p	A
535	...	...	264 15	264 5	355 31	43.362	35.626	—0.2	p	A
536	Arg. S. 67	17 36	287 50	287 10	355 30	44.871	34.122	—0.4	p	A
537	H. A. H.	17 45	184 35	184 45	175 30	40.443	38.548	—0.2	n	A
538	...	...	183 50	183 45	175 28	40.458	38.516	—0.3	n	A
539	W. M. C. Z.	17 46	356 0	358 30	175 28	41.278	40.641	0.0	n	III
540	Σ 2244	17 51	269 15	269 15	...	40.652	40.278	—0.4	p	A

Number.	Position Angle.		Distance.		Magnitudes.		Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.					
511	0 65.6	0 66.2	// ...	// ...	9.0	9.0	80.478	S	Too poor definition for distance.
512	248.2	246.2	2.16	2.28	...		80.398	E	
513	232.0	232.3	4.83	4.83	6.0	7.5	80.560	S	
514	231.1	229.3	4.74	4.86	7.0	8.0	80.379	E	
515	29.8	29.9	11.19	11.11	...		80.442	S	
516	29.9	30.0	...	...	8.0	9.0	80.442	S	
517	302.5	300.7	9.66	9.78	8.5	9.5	80.459	E	
518	111.5	111.3	...	...	8.0	9.0	80.439	S	
519	107.8	108.5	...	...	...		80.439	S	
520	21.6	21.8	4 30	4.22	...		80.596	S	
521	22.3	...	4.46	...	...		80.596	S	
522	153.4	153.1	4.33	4.25	6.0	10.5	80.442	S	
523	228.0	226.2	9.88	10.00	8.5	10.5	80.459	E	
524	289.8	288.1	16.88	17.00	...		80.349	E	
525	291.3	289.6	16.62	16.74	8.0	8.5	80.579	E	
526	42.9	43.7	0.8e	0.82	...		80.398	S	
527	44.1	44.9	...	...	8.5	9.5	80.398	S	
528	174.2	174.2	18.19	18.18	8.5	9.5	80.379	E	
529	174.2	174.2	18.12	18.11	...		80.420	E	
530	195.0	194.9	8.47	8.46	...		80.379	E	
531	...	...	0.5e	0.52	...		80.554	S	
532	...	...	...	...	6.0	6.5	80.554	S	
533	13.4	13.4	28.38	28.30	7.0	9.0	80.398	S	
534	268.0	266.3	26.87	26.99	8.0	9.0	79.355	E	
535	268.6	266.9	26.40	26.52	7.0	7.5	80.557	E	
536	292.0	290.3	36.69	36.81	8.0	8.5	80.379	E	
537	9.2	9.2	6.47	6.46	9.0	10.0	80.420	E	
538	8.3	8.2	6.63	6.62	8.0	9.5	80.459	E	
539	1.8	2.2	2.17	2.01	10.0	11.0	80.516	S	
540	...	...	1.28	1.28	7.0	7.3	80.554	S	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
541	Σ 2244 (continued)	17 51	270 25	272 45	355 31	40.684	40.275	—0.8	p	A
542	Σ 2262	17 57	245 20	246 10	355 31	40.784	40.164	—0.6	p	A
543	...	...	244 20	251 45	355 31	...	...	—0.5	p	I
544	...	...	247 50	248 0	358 13	40.237	39.777	+0.8	p	A
545	...	...	247 20	247 5	355 30	39.710	39.273	—0.4	p	A
546	h 5009	17 57	195 55	195 15	175 30	40.071	38.938	—0.7	n	A
547	H. V. E.	17 57	11 20	11 40	355 31	40.155	38.846	—0.3	n	A
548	h 5010	17 57	344 5	344 20	355 44	41.083	40.013	—0.3	n	A
549	Σ 2272	17 59	244 45	248 20	178 13	40.946	40.058	+0.4	p	A
550	...	...	248 35	247 25	178 17	40.947	40.133	—1.3	p	A
551	...	...	245 20	245 50	178 13	40.973	40.037	+0.7	p	III
552	...	...	238 40	240 30	175 31	40.940	40.042	0.0	...	...
553	...	...	249 50	248 50	178 13	40.441	39.592	+0.5	p	A
554	...	...	242 40	242 50	175 30	39.869	39.144	0.0	p	A
555	...	...	247 5	247 20	175 30	39.862	39.142	—0.2	p	I
556	O. S. 88	18 0	274 0	274 15	355 31	42.390	36.621	—0.1	p	A
557	β 244	18 1	254 25	255 10	355 31	39.771	39.218	—0.5	p	A
558	β 132	18 4	242 5	240 20	178 13	...	...	—0.2	p	A
559	...	...	233 20	234 48	355 31	39.638	39.328	0.0	p	A
560	...	...	235 0	235 0	355 31	39.604	39.355	—0.2	p	A
561	h 5035	18 7	254 0	255 0	355 28	42.976	37.966	0.0	p	A
562	β 131	18 7	276 0	278 0	355 31	39.872	39.113	0.0	p	A
563	h 2823	18 8	327 10	329 5	355 31	43.454	37.505	—0.2	n	A
564	...	...	147 35	148 0	175 30	42.478	36.479	—0.1	n	A
565	β 285	18 9	317 25	321 55	355 31	...	...	—0.4	n	A
566	h 2827	18 10	248 50	248 30	355 31	42.434	36.562	0.0	p	A
567	Sh 264	18 12	229 10	229 40	178 13	43.058	37.960	—0.2	p	A
568	β 48	18 14	176 15	176 35	175 31	39.853	39.159	—0.5	n	A
569	O. S.	18 16	261 25	263 20	178 13	41.465	39.495	—0.3	p	A
570	β 49	18 17	218 0	222 45	175 28	...	...	+0.1	...	...

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
541	° 276.1	° 276.9	// 1.40	// 1.40	7.0 8.0	80.560	S	{ Distance measured with dark wires. Distance measured with dark wires.
542	250.2	250.7	2.12	2.12	5.5 6.5	80.560	S	
543	252.5	...	...	...	...	80.560	S	
544	249.7	248.7	1.57	1.59	...	79.267	H	Observed after sunrise.
545	251.7	249.7	1.49	1.62	...	80.379	E	
546	20.1	19.9	3.87	3.86	9.0 9.5	80.576	E	
547	16.0	15.9	4.47	4.46	9.0 9.2	80.576	E	
548	348.5	348.4	3.65	3.57	9.0 9.5	79.593	S	
549	68.3	68.8	3.03	3.03	...	79.270	S	
550	69.7	70.2	2.78	2.78	...	79.346	S	
551	67.4	67.9	3.19	3.19	...	79.270	S	
552	64.1	64.5	3.06	3.06	...	80.560	S	{ Distance measured with dark wires.
553	71.1	70.4	2.90	2.92	...	79.267	H	
554	67.2	65.3	2.47	2.59	...	80.379	E	
555	71.7	...	2.46	...	...	80.379	E	
556	278.6	276.9	19.69	19.81	9.0 9.5	80.574	E	Near h 592.
557	259.3	257.3	1.89	2.01	...	80.579	E	
558	63.0	63.7	0.8e	0.82	6.5 6.5	79.270	S	Tangent screw not used.
559	238.6	236.4	1.06	1.18	8.5 8.8	80.576	E	
560	239.5	237.3	0.85	0.97	...	80.579	E	Very faint.
561	259.0	259.3	17.10	17.12	5.0 9.0	80.530	S	
562	281.5	279.6	2.59	2.71	...	80.579	E	
563	332.6	332.3	20.30	20.22	8.5 9.0	80.593	S	
564	332.3	332.3	20.47	20.46	9.0 9.5	80.420	E	
565	324.2	324.2	1.2e	...	8.0 10.0	80.596	S	Poor definition.
566	253.2	251.5	20.04	20.16	9.0 9.5	80.582	E	In an oval nebula.
567	51.2	51.4	17.40	17.40	6.0 8.0	79.270	S	
568	0.9	0.6	2.37	2.36	9.0 9.5	80.582	E	
569	84.2	84.6	6.72	6.72	8.5 9.0	79.297	S	
570	44.9	45.2	...	...	...	80.516	S	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
571	β 49 (continued)	h. m. 18 17	° / 219 0	° / 220 10	° / 175 28	r. ...	r. ...	—0.1	...	...
572	Jacob 201	18 18	285 50	289 5	...	40.769	40.136	—0.2	p	A
573	...	...	290 35	290 10	355 31	40.791	40.164	+0.2	...	...
574	β 247	18 26	342 50	346 20	175 31	41.568	39.370	+0.1	n	A
575	Σ 2434 B,C	18 57	237 55	240 20	175 42	40.729	40.199	+0.1	p	III
576	S 711	19 1	299 15	298 35	175 30	46.197	32.754	—0.8	n	A
577	h 1373?	19 6	237 45	237 30	175 28	40.802	38.188	—0.6	p	A
578	β 138	19 7	274 15	278 50	355 31	40.656	40.296	—0.2	p	A
579	H. A. H. 95	19 15	321 15	327 5	175 42	...	...	—0.6	n	A
580	H. A. H.	19 16	260 50	260 5	175 28	...	...	—0.2	p	A
581	...	...	257 55	258 20	175 31	...	...	—0.7	p	A
582	...	...	...	...	...	39.830	39.092	...	p	A
583	...	...	...	...	...	39.800	39.111	...	p	A
584	h 2866 A,B	19 16	230 25	230 10	175 31	42.889	36.121	—0.4	p	A
585	...	...	230 0	230 20	175 31	42.921	36.061	—0.5	p	A
586	... A,C	...	132 50	132 25	355 31	43.013	36.003	—0.4	n	A
587	... B,C	...	273 40	272 40	355 31	44.588	34.406	—0.3	p	A
588	O. S.	19 20	9 50	11 35	175 31	41.220	39.778	0.0	n	A
589	...	...	10 15	11 30	175 31	41.146	41.218	—0.7	n	III
590	β 423	19 20	293 45	297 0	175 42	40.677	40.306	—0.5	n	A
591	Σ 2541	19 30	325 35	330 45	355 31	41.035	39.920	—0.6	n	A
592	Σ 2545	19 32	316 0	316 5	355 31	40.011	38.934	—0.1	n	A
593	...	...	136 35	137 25	175 31	40.040	38.952	—0.4	n	A
594	h 5144	19 38	4 25	5 30	355 42	42.081	38.962	—0.3	n	A
595	...	...	184 45	186 50	175 42	41.961	39.031	—0.7	n	I
596	...	...	184 55	185 10	175 28	40.983	38.025	—0.2	n	A
597	A. C. 12	19 52	141 25	142 30	175 31	40.672	40.296	—0.6	n	A
598	...	...	138 25	139 30	175 31	39.639	39.326	—0.5	n	A
599	h 5164	19 54	298 55	300 55	175 42	41.857	39.123	—0.6	n	A
600	...	...	295 20	296 20	175 42	41.881	39.145	—0.5	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
571	o 44.1	o 44.4	// ...	// ...	...	80.516	S	
572	...	...	2.16	2.16	5.0 8.0	80.554	S	
573	294.8	295.4	2.14	2.14	5.0 8.5	80.560	S	Very poor definition. Most of the time exceedingly faint.
574	169.1	169.0	7.50	7.42	7.0 10.0	80.593	S	
575	63.4	64.2	1.81	1.81	8.0 10.5	79.680	S	
576	123.4	123.4	45.88	45.87	7.5 8.5	80.379	E	Too wide for power A.
577	62.2	59.8	8.92	9.04	9.5 10.0	80.442	E	Position angle probably 239°.8.
578	281.0	281.7	1.23	1.23	8.0 10.0	80.593	S	Distance estimated 0".8
579	148.5	149.4	0.4e	0.42	6.0 6.5	79.691	S	
580	85.0	83.0	...	...	...	80.442	E	Became too faint for distance.
581	82.6	80.6	...	...	9.0 9.3	80.576	E	Too faint for distance.
582	...	...	2.52	2.64	...	80.579	E	Very faint.
583	...	...	2.35	2.47	...	80.582	E	Light clouds; poor definition.
584	54.8	53.1	23.10	23.22	8.0 8.3	80.574	E	
585	54.6	52.9	23.41	23.53	...	80.576	E	
586	137.1	137.1	23.92	23.91	...	80.576	E	
587	277.7	276.0	34.75	34.87	8.0 8.5	80.574	E	P est = 180°.
588	195.2	195.2	4.92	4.84	6.8 7.3	80.623	S	
589	195.4	195.7	4.65	4.49	...	80.623	S	
590	119.7	119.6	1.27	1.19	7.0 8.0	79.691	S	Distance estimated 1".0 Stars seem faint and unsatisfactory to-night. Poor definition.
591	332.6	332.4	3.80	3.72	8.0 10.0	80.596	S	
592	320.5	320.4	3.68	3.67	7.0 8.5	80.560	E	
593	321.5	321.4	3.71	3.70	...	80.563	E	
594	9.3	9.3	10.64	10.56	...	79.683	S	
595	10.1	...	10.00	...	9.0 10.0	79.683	S	
596	9.6	9.5	10.10	10.09	8.0 9.0	80.516	E	
597	326.5	326.6	1.28	1.20	...	80.557	S	
598	323.4	322.8	1.07	1.06	...	80.563	E	
599	124.2	123.8	9.33	9.25	8.0 9.0	79.691	S	
600	120.1	120.6	9.34	9.34	...	79.691	S	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
601	h 2918	19 55	129 15	130 5	355 28	41.941	37.088	—0.2	n	A
602	Σ 2646	20 8	225 25	225 10	175 31	42.861	36.108	—0.4	p	A
603	Arg. S. 84	20 15	262 40	263 0	355 42	43.114	37.859	+0.2	p	A
604	...	...	262 10	262 50	355 42	43.028	37.974	—0.1	p	I
605	H. A. H.	20 20	231 20	231 40	175 30	40.404	39.603	—0.3	p	III
606	H ii 51	20 22	348 0	347 15	175 42	41.012	40.045	—0.2	n	III
607	H iv 71	20 23	236 15	236 10	355 31	42.718	36.242	—0.3	p	A
608	O. S.	20 31	243 20	245 25	355 30	...	...	—0.1	p	A
609	...	...	236 35	240 10	355 42	40.180	39.776	—0.6	p	III
610	h 921	20 35	214 0	215 15	175 31	40.850	38.143	—0.8	p	A
611	β 267	20 35	235 0	236 10	355 44	40.835	40.238	—0.3	p	III
612	...	...	230 50	234 10	355 44	...	...	—0.3	p	I
613	β 674	20 38	98 0	103 25	355 42	...	...	—0.6	p	A
614	...	...	97 40	98 25	355 30	40.178	39.787	—0.4	p	A
615	h 5220	20 39	170 20	170 15	175 28	42.127	36.852	—0.5	n	A
616	β 154	20 46	234 35	236 30	175 42	40.922	40.081	—1.1	p	A
617	...	...	233 20	236 10	175 42	40.926	40.087	+0.1	p	A
618	...	...	54 35	54 5	355 42	40.953	40.070	—0.1	p	I
619	Σ 2745	20 58	185 10	186 40	355 31	40.989	40.050	—0.2	n	A
620	...	...	5 35	7 15	175 31	40.908	40.094	—0.5	n	A
621	...	...	3 10	7 5	175 31	40.974	40.035	—0.2	n	I
622	h 5252	21 6	136 25	135 35	175 31	39.926	39.014	—1.0	n	A
623	H. V. E.	21 8	335 35	335 40	175 44	53.967	24.837	—0.5	n	III
624	Σ 2781	21 10	344 20	345 10	175 31	40.963	40.042	—0.1	n	A
625	β 271	21 13	224 15	229 42	355 42	40.870	40.104	—0.1	n	A
626	...	...	225 40	228 20	355 42	40.802	40.192	—0.2	p	A
627	Σ 2787	21 16	194 45	195 0	175 30	42.783	36.152	—0.8	n	III
628	β 272	21 18	250 50	250 45	355 30	40.618	39.368	—0.8	p	III
629	H. A. H.	21 19	318 55	319 40	175 42	41.163	38.794	—1.2	n	III
630	...	...	319 50	317 35	175 42	41.212	38.800	—1.1	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
601	° 134.2	° 134.2	° 16.56	° 16.55	...	80.442	E	
602	49.8	48.1	23.05	23.17	7.5 9.0	80.560	E	
603	267.1	267.4	17.93	17.93	...	79.713	S	
604	266.8	...	17.25	...	9.0 10.0	79.713	S	
605	56.0	55.0	2.73	2.77	8.5 9.0	79.790	H	
606	171.9	172.1	3.30	3.14	5.0 7.0	79.710	S	
607	240.7	239.0	22.10	22.22	6.0 6.5	80.560	E	
608	248.9	248.0	...	...	8.5 9.0	79.790	H	Blurry and hazy.
609	242.7	241.3	1.38	1.42	8.0 8.0	79.754	H	Poorly defined.
610	39.1	37.3	9.24	9.36	...	80.563	E	
611	239.8	240.5	2.04	2.04	10.0 10.0	79.593	S	
612	236.8	...	...	...	...	79.593	S	
613	105.0	104.7	...	...	8.0 11.0	79.754	H	Too blurred for distance.
614	102.5	102.0	1.33	1.35	8.0 10.5	79.790	H	
615	354.8	354.8	18.00	17.99	8.0 9.0	80.516	E	
616	59.8	60.3	2.87	2.89	8.0 9.0	79.683	S	
617	59.0	59.4	2.86	2.86	8.0 9.5	79.694	S	
618	58.6	...	3.01	...	...	79.694	S	
619	190.4	190.5	3.20	3.12	6.0 8.5	80.563	S	
620	190.9	191.1	2.78	2.70	5.5 7.0	80.593	S	
621	189.6	...	3.20	...	...	80.593	S	
622	320.5	320.3	3.11	3.10	...	80.563	E	
623	59.9	59.9	99.41	99.40	9.0 9.5	79.656	E	
624	169.2	169.2	3.14	3.06	8.0 8.2	80.563	S	
625	231.3	231.8	2.61	2.53	...	79.694	S	
626	231.3	231.7	2.08	2.08	6.5 9.5	79.694	S	
627	19.4	19.4	22.63	22.62	...	79.779	E	
628	255.3	255.7	4.27	4.31	8.0 12.0	79.790	H	Exceedingly difficult.
629	143.6	142.8	8.08	8.18	8.0 10.0	79.754	H	
630	143.0	143.0	8.23	8.27	...	79.754	H	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer..		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
631	β 683	21 21	195 45	196 20	355 30	...	...	—0.6	n	III
632	β 165	21 28	175 35	175 10	355 30	40.702	39.341	—0.7	n	III
633	Σ 2809	21 31	338 0	338 35	175 42	45.016	35.923	—0.7	n	A
634	...	...	337 55	339 0	175 42	45.033	35.918	—0.9	n	I
635	Σ 2826 A,C	21 41	75 25	75 40	355 42	40.557	39.410	—0.5	p	A
636	H.A.H. A,B	...	279 0	280 55	175 30	...	...	—0.3	p	A
637	O. S. 110	21 41	353 20	354 20	175 42	40.412	39.616	—1.1	n	III
638	h 3059	21 44	69 45	69 40	175 42	43.607	36.320	—1.3	p	III
639	h 615	21 47	63 5	63 5	355 42	41.817	38.213	0.9	p	A
640	...	...	63 10	63 10	355 42	41.766	38.186	—1.1	p	III
641	Σ 2838	21 48	179 50	181 15	355 31	42.387	36.585	—1.2	n	A
642	Σ 2839 rej.	21 49	270 55	271 0	355 42	44.459	35.459	—0.6	p	III
643	...	...	270 25	270 35	355 30	44.028	34.952	—1.4	p	III
644	h 3068	21 51	282 50	282 45	355 30	42.014	38.951	—0.3	p	A
645	...	...	103 30	102 15	175 42	...	...	—1.2	p	III
646	Σ 2847	21 52	298 15	299 35	175 42	40.668	40.314	—0.8	n	A
647	...	...	296 45	295 45	175 42	40.653	40.361	—0.7	p	A
648	Σ 2848	21 52	231 45	231 30	175 42	41.432	38.570	—1.8	p	A
649	...	...	231 35	231 25	175 42	41.455	38.568	—1.6	p	I
650	O. S. III	21 53	210 10	213 30	175 38	42.217	38.787	—0.1	n	A
651	...	...	30 45	33 10	355 42	42.183	38.773	—0.5	n	III
652	...	...	209 35	210 50	175 38	42.238	38.722	—0.2	p	A
653	...	...	29 35	31 10	355 42	42.195	38.712	—0.4	p	III
654	...	...	30 30	32 50	355 42	41.651	38.259	—0.9	n	III
655	...	...	32 35	31 55	355 42	...	...	—1.0	p	III
656	β 256	21 54	287 55	289 5	175 31	40.749	40.243	—0.3	p	A
657	S 802	21 56	61 0	60 35	175 31	40.034	38.992	—0.8	p	A
658	...	...	239 30	239 15	355 31	39.989	38.993	—0.4	p	I
659	β 475	22 6	54 20	48 20	175 42	...	...	—0.7	p	A
660	...	...	40 35	44 25	175 42	...	...	—0.6	p	III

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
631	200.5	197.3	2.5e	...	8.5 12.0	79.790	H	Very faint; clouds, etc.
632	179.9	178.4	4.64	4.74	8.0 10.5	79.790	H	
633	162.6	162.4	31.03	30.95	...	79.691	S	
634	162.8	...	31.11	...	5.5 8.0	79.691	S	
635	79.8	79.4	3.91	3.93	8.0 9.0	79.754	H	A slightly elongated at $120^\circ \pm$
636	104.5	105.5	0.8e	0.82	8.0 10.0	79.771	S	Principal star white.
637	178.1	175.9	2.72	2.82	8.0 9.5	79.754	H	Faint.
638	254.0	253.7	24.87	24.91	7.0 11.0	79.754	H	Very faint.
639	67.4	67.1	12.30	12.32	...	79.754	H	Faint.
640	67.5	67.1	12.22	12.26	7.5 9.0	79.754	H	
641	185.0	185.0	19.80	19.79	...	80.560	E	{ Difficult on account of faint- ness of companion.
642	275.3	275.0	30.72	30.76	7.5 9.5	79.754	H	
643	275.0	273.3	30.97	31.21	...	79.779	E	{ Too faint to measure distance well.
644	287.3	287.7	10.45	10.45	8.5 11.0	79.771	S	
645	287.2	287.0	...	...	8.0 11.0	79.754	H	Too faint for distance.
646	123.2	123.3	1.21	1.13	7.0 8.0	79.691	S	
647	120.6	121.6	1.00	1.00	...	79.691	S	
648	55.9	55.5	9.77	9.79	7.0 8.0	79.735	H	
649	55.8	...	9.85	...	...	79.735	H	
650	36.2	36.3	11.71	11.63	...	79.760	S	
651	36.3	36.6	11.64	11.48	6.5 10.0	79.749	S	
652	34.6	34.7	12.00	12.00	7.5 10.0	79.760	S	Principal star white.
653	34.7	34.9	11.89	11.89	...	79.749	S	
654	36.0	35.1	11.58	11.68	...	79.754	H	
655	36.6	36.0	...	...	7.0 10.0	79.754	H	
656	113.0	113.7	1.73	1.73	5.5 7.0	80.563	S	
657	245.3	243.4	3.56	3.68	...	80.560	E	Very blurry.
658	243.8	...	3.40	...	...	80.560	E	
659	235.6	234.5	...	...	7.0 11.0	79.754	H	Too blurred for distance.
660	226.8	224.6	1.0e	...	...	79.754	H	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
661	H n 56	22 8	110 15	111 45	355 42	40.697	39.317	0.0	p	III
662	...	...	292 15	292 35	175 34	40.174	38.782	-1.1	p	A
663	β 171	22 8	252 40	255 15	355 42	...	...	+0.1	p	III
664	O. S. 114	22 8	91 10	92 20	355 42	41.345	38.598	-0.2	p	III
665	H n 102	22 10	291 0	291 25	355 42	41.883	38.136	-1.8	n	III
666	...	...	290 35	290 25	355 42	...	...	-1.6	p	III
667	Σ 2885 rej.	22 10	95 10	94 20	355 42	43.203	36.780	-0.6	p	III
668	Σ 2892 rej. A, B	22 13	56 40	52 10	355 42	...	...	-0.4	p	III
669	... A, C	...	260 20	259 10	355 42	45.274	34.651	-0.5	p	III
670	h 962 A, B	22 14	13 35	14 50	355 42	40.920	39.086	-1.5	n	III
671	...	...	194 15	196 10	175 42	41.801	38.195	+0.2	n	III
672	...	...	13 10	11 10	355 42	...	...	-1.6	p	III
673	... A, C	...	219 15	218 40	355 42	41.451	38.578	+0.1	n	III
674	...	...	39 25	40 15	175 42	41.372	38.551	-1.4	p	III
675	Σ 2901	22 18	321 5	319 45	175 34	39.958	39.077	-0.8	n	A
676	Sh 345	22 20	119 50	121 35	175 31	41.598	41.359	-0.2	p	A
677	...	...	302 35	303 0	355 31	40.596	38.387	-0.5	p	A
678	Σ 2909	22 23	327 35	327 45	355 42	41.000	39.973	-1.2	n	A
679	...	...	327 20	327 30	355 42	40.950	39.993	-0.7	n	A
680	...	...	328 10	328 40	355 42	40.958	40.004	-0.7	n	III
681	...	...	326 40	326 20	355 42	41.020	39.987	-0.4	n	II
682	...	...	327 50	328 30	355 42	41.132	39.879	-0.8	n	I
683	...	...	147 55	148 20	175 30	40.473	39.523	-1.5	n	A
684	...	...	328 35	328 50	355 30	40.463	39.522	-1.5	n	A
685	...	...	328 25	327 40	355 42	40.485	39.530	-1.5	n	III
686	...	...	148 0	147 20	175 31	39.953	38.987	-0.7	n	A
687	Σ 2913	22 24	326 5	326 15	355 42	41.103	38.853	+0.2	n	A
688	Σ 2928	22 33	311 45	310 35	175 42	41.142	39.847	-0.3	n	VI
689	...	...	311 30	314 45	175 42	41.128	39.872	-0.3	n	VI
690	...	...	312 45	315 10	175 42	41.125	39.832	-0.3	n	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	''	''				
661	115.3	115.1	4.71	4.75	6.5 7.5	79.754	H	Very windy.
662	116.8	115.0	4.75	4.87	7.0 9.0	79.765	E	
663	258.3	257.9	10.e	...	8.5 12.0	79.754	H	
664	96.0	95.7	9.37	9.41	8.0 12.0	79.754	H	10 sec. $\pm$ following another 8 ^m
665	295.5	295.0	12.79	12.89	9.5 9.5	79.735	H	
666	294.8	294.3	...	...	...	79.735	H	
667	99.0	98.8	21.92	21.96	8.0 12.0	79.754	H	Very faint.
668	58.7	58.1	10.e	...	... 12.0	79.754	H	
669	264.0	263.7	36.25	36.29	8.0 9.0	79.754	H	
670	18.5	17.1	6.26	6.36	...	79.735	H	{ Micrometer changed 2 rev. in reduction.
671	19.5	18.7	5.48	5.58	... 11.0	79.754	H	
672	16.5	16.0	...	...	5.5 10.0	79.735	H	
673	223.3	222.3	9.81	9.91	5.5 11.0	79.754	H	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
674	224.1	223.6	9.63	9.67	... 10.0	79.735	H	
675	144.8	144.6	3.01	3.00	9.0 9.5	79.765	E	
676	305.2	305.7	7.64	7.64	7.0 7.0	80.563	S	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
677	307.3	305.5	7.54	7.66	...	80.560	E	
678	332.0	332.0	3.50	3.42	...	79.713	S	
679	331.7	331.7	3.27	3.19	...	79.746	S	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
680	332.7	332.8	3.26	3.10	...	79.713	S	
681	330.8	...	3.53	...	...	79.746	S	
682	332.5	...	4.28	...	...	79.713	S	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
683	332.6	331.5	3.24	3.29	4.5 4.5	79.787	H	
684	333.2	332.1	3.21	3.26	4.5 4.5	79.790	H	
685	332.3	330.6	3.26	3.36	...	79.735	H	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
686	332.2	332.0	3.30	3.29	...	80.560	E	
687	330.5	330.0	7.68	7.73	8.0 9.0	79.754	H	
688	135.5	135.2	4.42	4.38	...	79.746	S	{ Unsatisfactory; faint; poor definition. Micrometer II changed 2 rev. in reduction.
689	137.4	137.1	4.29	4.25	...	79.749	S	
690	138.3	138.0	4.41	4.33	...	79.713	S	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
691	...	...	312 40	313 30	175 42	41.127	39.857	-0.6	n	III
692	...	...	312 25	312 45	175 42	41.092	39.916	-0.5	n	III
693	...	...	313 30	313 55	175 42	40.115	39.827	-0.4	n	II
694	...	...	309 55	311 15	175 42	41.114	39.863	-0.2	p	VI
695	...	...	310 20	311 10	175 42	41.117	39.876	-0.3	p	VI
696	...	...	309 35	310 35	175 42	41.110	39.881	+0.2	p	A
697	...	...	309 50	310 0	175 42	41.131	39.881	+0.3	p	III
698	...	...	310 20	311 5	175 42	41.124	39.894	-0.4	p	III
699	...	...	311 10	311 10	175 42	40.111	39.907	-0.1	p	II
700	...	...	311 0	311 15	355 31	40.165	38.790	-0.4	n	A
701	...	...	312 30	312 10	175 42	40.076	38.902	+0.7	p	VI
702	...	...	313 30	313 5	175 42	40.119	38.883	+1.1	p	A
703	Σ 2940	22 38	136 15	137 0	355 42	39.881	39.101	-0.3	p	A
704	h 1811	22 43	329 55	331 20	175 42	40.793	39.179	-1.7	n	III
705	Σ 2948	22 45	179 25	179 45	175 42	39.880	39.116	-1.8	n	A
706	...	...	179 50	180 0	175 42	39.889	39.105	-2.1	p	A
707	Σ 2953	22 48	134 15	133 15	355 42	40.714	38.250	-1.7	p	A
708	O. S.	22 52	127 5	130 0	355 31	...	...	+0.3	n	A
709	...	...	125 42	128 45	355 31	40.853	40.133	+0.2	p	A
710	h 1838	22 54	82 25	81 55	175 42	39.794	39.184	-1.4	n	A
711	...	...	83 0	83 35	175 42	39.789	39.201	-1.5	p	A
712	Σ 2971	22 54	359 5	358 40	355 42	40.311	38.718	-1.0	n	A
713	...	...	182 40	182 45	179 52	40.283	38.733	-0.2	n	A
714	Σ 2970	22 56	33 0	32 55	355 42	41.149	38.811	-1.8	p	III
715	h 3174	23 4	14 55	14 25	355 42	40.788	39.214	-1.7	n	III
716	β 714	23 8	330 30	333 45	175 42	...	...	-0.8	n	VI
717	h 981	23 8	96 30	96 40	175 42	42.680	37.427	-1.7	p	III
718	β 715	23 8	250 20	255 55	355 34	40.960	40.073	-0.2	p	III
719	...	...	252 50	254 45	355 30	40.970	40.050	0.0	p	III
720	Σ 2996	23 9	102 50	102 50	355 42	40.224	38.753	-0.6	p	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
691	° 137.4	° 137.2	° 4.33	° 4.17	8.5 8.7	79.713	S	{ Micrometer I changed 1 rev. in reduction.
692	136.9	136.7	4.01	3.85	...	79.749	S	
693	138.0	...	4.40	...	...	79.746	S	
694	134.9	135.5	4.27	4.27	...	79.746	S	
695	135.0	135.6	4.24	4.24	...	79.749	S	
696	134.4	134.9	4.19	4.19	...	79.713	S	
697	134.2	134.8	4.27	4.27	...	79.713	S	
698	135.0	135.6	4.20	4.20	...	79.749	S	
699	135.5	...	4.11	...	...	79.746	S	
700	315.6	315.5	4.69	4.68	...	80.560	E	{ Micrometer I changed 1 rev. in reduction.
701	136.6	134.8	4.01	4.07	...	79.746	E	
702	137.6	135.8	4.22	4.34	...	79.746	E	
703	140.9	138.8	2.66	2.78	9.0 10.0	79.752	E	
704	154.9	153.7	5.51	5.61	8.5 9.0	79.735	H	
705	3.9	3.7	2.61	2.60	...	79.752	E	
706	4.2	2.3	2.68	2.80	7.0 9.0	79.752	E	
707	138.0	136.2	8.41	8.53	8.0 11.0	79.752	E	
708	133.0	132.7	...	...	...	80.563	S	
709	131.7	132.3	2.46	2.46	7.0 8.0	80.563	S	{ The position angle is in the right quadrant.
710	266.5	266.2	2.08	2.07	...	79.752	E	
711	267.6	265.6	2.01	2.13	10.0 11.0	79.752	E	
712	3.2	3.1	5.44	5.43	8.0 9.0	79.752	E	
713	2.8	2.7	5.29	5.28	...	79.497	E	
714	37.3	36.7	7.98	8.02	8.5 9.5	79.735	H	
715	19.0	17.4	5.37	5.47	8.5 9.0	79.735	H	
716	156.5	156.6	0.8e	0.82	7.0 11.0	79.760	S	
717	280.9	280.7	17.93	17.97	8.5 12.0	79.735	H	
718	257.6	256.9	3.03	3.03	6.0 12.0	79.765	S	Perhaps an "atmospheric wing."
719	258.3	257.6	3.14	3.14	6.0 11.0	79.771	S	
720	107.1	105.3	5.02	5.14	8.5 9.0	79.752	E	

Number.	Double Star.	Mean R. A. 1880.	Position Circle.		Assumed Zero.	Micrometer.		Hour Angle.	Eyes.	Eye-piece.
			I.	II.		I.	II.			
		h. m.	° /	° /	° /	r.	r.			
721	h 5393	23 12	299 15	302 40	355 30	43.305	37.658	—1.0	n	III
722	...	...	299 0	299 20	355 30	43.261	37.775	—0.9	p	III
723	h 5394	23 13	15 45	18 15	355 30	42.113	38.980	—0.4	n	A
724	...	...	196 0	197 15	175 30	42.122	38.955	—1.5	n	A
725	...	...	195 0	197 10	175 30	42.016	38.943	—1.6	p	A
726	Σ 3003	23 13	83 50	83 40	175 42	42.906	36.069	—0.4	p	III
727	h 3189	23 17	308 50	309 40	175 42	46.127	33.945	—1.7	n	III
728	Σ 3008	23 18	247 45	249 20	355 42	41.190	39.774	—0.1	p	VI
729	...	...	249 15	250 30	355 30	41.190	39.794	—0.6	p	VI
730	...	...	247 20	249 35	355 31	41.198	39.792	0.0	p	A
731	...	...	248 25	248 15	355 42	41.176	39.818	—0.2	p	III
732	Σ 3011	23 20	148 30	148 10	175 42	40.504	38.470	—0.3	p	A
733	H. V. E.	23 20	228 50	229 10	175 30	...	...	—0.8	p	III
734	Σ 3014	23 22	92 35	94 25	175 42	41.115	38.855	—1.6	p	III
735	h 3196	23 24	194 0	193 40	175 31	42.455	36.552	—0.1	n	A
736	...	...	196 20	196 30	175 28	42.531	...	—1.0	p	A
737	h 3197	23 24	304 0	305 10	355 30	...	...	—1.2	n	A
738	...	...	...	...	...	41.720	39.242	0.0	n	A
739	...	...	301 0	302 35	355 30	41.720	39.295	—1.1	p	A
740	...	...	300 35	303 20	355 30	...	...	—0.3	p	I
741	β 726	23 40	327 40	330 15	355 38	...	...	—0.8	n	A
742	...	...	316 15	321 35	355 30	...	...	—0.5	n	A
743	...	...	317 5	317 15	355 30	...	...	—0.4	p	A
744	H. V. E. 124	23 41	262 15	261 40	175 42	40.222	39.828	—1.5	p	III
745	Σ 3040	23 42	32 20	32 25	175 42	40.612	39.392	—1.7	...	III
746	Σ 3045	23 48	252 50	253 25	355 42	40.250	39.737	—1.5	p	III
747	Σ 3046	23 50	241 45	242 30	355 42	39.948	39.050	0.0	p	A
748	Weisse	23 54	266 15	267 40	175 42	40.249	39.718	—1.2	p	III
749	H. A. H.?	23 55	80 10	83 35	355 42	40.268	39.738	—1.4	p	III
750	Σ 3052	23 57	182 25	182 30	175 42	44.453	34.501	—0.7	n	A

Number.	Position Angle.		Distance.		Magnitudes.	Epoch 1800+	Observer.	Notes.
	Obs.	Cor.	Obs.	Cor.				
	°	°	//	//				
721	305.5	305.1	19.27	19.11	8.0 10.0	79.771	S	Principal star white.
722	303.7	304.2	18.72	18.72	...	79.771	S	
723	21.5	20.9	10.69	10.61	6.0 10.5	79.773	S	
724	21.1	21.3	10.81	10.73	...	79.790	S	
725	20.6	20.8	10.49	10.49	5.0 10.5	79.790	S	
726	268.0	266.3	23.33	23.57	...	79.752	E	
727	133.6	133.2	41.57	41.67	...	79.735	H	
728	252.8	253.3	4.83	4.83	...	76.749	S	
729	254.4	254.8	4.76	4.76	6.5 7.5	79.790	S	
730	253.0	253.4	4.80	4.80	7.0 8.0	80.563	S	
731	252.6	253.1	4.63	4.63	7.0 8.0	79.749	S	Definition very poor. Became too faint for distance.
732	332.6	330.8	6.94	7.06	...	79.752	E	
733	53.5	51.7	7.e	...	...	79.902	E	
734	277.8	277.7	7.71	7.75	7.5 9.5	79.735	H	
735	18.3	18.3	20.15	20.14	9.0 10.0	80.893	E	
736	21.0	19.3	...	...	...	80.516	E	
737	309.1	308.8	...	...	8.0 9.0	79.790	S	
738	...	...	8.46	8.38	9.0 10.0	79.842	S	
739	306.3	306.9	8.28	8.28	...	79.790	S	
740	306.5	...	...	...	...	79.809	S	Clouds. Too faint with power A. { Probably an error of 10° in pos. angle.
741	333.3	333.7	0.8e	0.82	8.0 10.5	79.760	S	
742	323.4	323.6	0.7e	0.72	8.0 10.0	79.773	S	
743	321.7	322.6	...	...	...	79.773	S	
744	86.3	86.1	1.34	1.38	8.5 9.0	79.735	H	
745	216.7	216.0	4.16	4.20	8.5 8.5	79.735	H	
746	257.4	257.1	1.75	1.79	8.0 9.0	79.735	H	
747	246.4	244.5	3.06	3.18	...	79.746	E	
748	91.3	91.0	1.81	1.85	8.5 9.0	79.735	H	
749	86.2	85.9	1.81	1.85	8.5 9.0	79.735	H	Probably same as preceding.
750	6.8	6.8	33.96	33.95	...	79.752	E	

MEAN RESULTS.

1879-80.

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
1	Σ 3063	L. 47294	0 1 28	— 5 13	220.6	1.78	3.2	8.2 9.2	79.71
2	Σ 3064 rej.	P. M. 2873	0 2 10	+39 26	353.9	23.78	1.1	7.0 10.0	79.61
3	β 486	Ceti 31	0 8 19	— 8 27	6.3	3.05	2.2	5.8 10.5	79.76
4	Σ 15	L. 204	0 9 44	— 6 16	196.0	5.26	1.1	9.0 10.5	79.66
5	h 1947	L. 209	0 10 3	+42 56	76.4	9.07	1.1	7.0 9.0	79.61
6	Weisse	W o 264	0 11 10	+35 11	106.4	5.35	1.1	8.0 8.7	79.61
7	Σ 23	W o 164	0 11 20	— 0 21	349.2	8.11	1.1	...	79.75
8	β 393	L. 291	0 12 12	—21 48	11.4	0.69	1.1	6.0 8.0	79.75
9	β 256	Anon.	0 13 9	—14 29	250.3	2.41	1.1	8.5 9.5	79.77
10	H v 85	L. 335	0 13 44	+37 34	15.8	62.80	1.1	7.5 9.0	79.70
11	Σ 30	Cassiopeæ 49	0 20 43	+49 19	299.1	19.20	2.2	6.8 8.5	79.61
12	Σ 31	P. M. 26	0 21 30	+40 45	57.1	5.56	1.1	8.5 9.0	79.61
13	h 1968	L. 593	0 21 33	—17 4	71.9	7.46	2.2	7.0 10.8	79.87
14	h 1980	Anon.	0 25 25	—11 56	122.8	6.03	1.1	...	79.78
15	h 3377	Anon.	0 27	—26 45	56.5	18.55	1.1	...	79.90
16	h 3379	L. 937	0 30 47	—28 5	231.3	14.49	3.3	7.0 9.5	79.76
17	h 1044	Anon.	0 33 46	+43 5	318.8	21.90	2.2	8.5 8.7	79.61
18	Σ 67	L. 1432	0 45 52	+ 9 57	4.4	2.00	1.1	8.5 9.5	79.70
19	h 2000	Anon.	0 46 6	—15 30	114.2	17.80	1.1	...	79.90
20	β 734	Lac. 238	0 46 47	—24 40	345.6	10.75	1.1	5.5 9.5	79.69
21	Σ 70	P. M. 68	0 46 52	+52 2	244.2	8.13	2.2	...	79.78
22	W. C. 457,8	Lac. 241	0 47 19	—25 26	12.7	5.50	1.1	7.0 9.0	79.69
23	H. A. H. 1	O. Arg. 509	0 49 52	—17 1	105.1	1.72	2.2	8.5 8.5	79.78
24	Σ 76	P. M. 73	0 50 19	+10 1	199.3	3.38	1.1	9.0 13.0	79.74
25	Σ 82	L. 1737	0 54 26	+ 8 50	306.8	2.40	1.1	8.0 9.0	79.66
26	h 2010	L. 1774	0 55 53	+47 3	270.8	10.03	1.1	8.0 9.5	79.61
27	h 1064	39 Andromedæ	0 56 10	+40 42	3.4	15.	1.0	6.0 13.0	79.61
28	Σ 86	L. 1885	0 58 43	— 6 7	160.0	12.85	4.3	...	79.87
29	h 10 A,B	Anon.	0 58 47	+12 11	313.0	4.76	2.1	8.2 9.8	79.66
30	... A,C	...	...	...	55.2	8.80	2.1	... 9.5	79.66

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
31	h 10 B,C	Anon.	0 58 47	+12 11	263.1	10.79	2.1	...	79.66
32	H iv 66	Cassiopeæ 106	0 59 59	+52 51	75.2	22.83	1.1	...	79.78
33	Σ 89 rej.	O. Arg. 1090	1 0 13	+79 42	14.8	16.14	1.1	8.5 9.0	79.75
34	h 633	Schj. 379	1 3 3	— 3 32	143.4	9.39	1.1	10.0 11.0	79.74
35	Σ 96	Piazzi o 312	1 4 51	+64 22	279.5	1.41	1.1	...	79.78
36	Σ 101	L. 2204	1 7 54	— 8 15	340.6	20.94	2.2	7.0 9.8	79.78
37	H.V. E. A,B	Anon.	1 9	+53 7	271.8	...	1.	...	79.78
38	... A,C	...	...	...	114.5	...	1.	...	79.78
39	Σ 103	Lamont V 191	1 8 38	— 1 59	243.6	5.47	1.1	8.0 11.0	79.74
40	Σ 106	W i 124	1 10 14	— 7 47	307.9	4.61	1.1	9.0 9.0	79.74
41	Σ 102 A,B	L. 2283	1 10 40	+48 23	307.8	0.52	2.½	7.0 8.0	79.61
42	...½(A+B),C	...	...	...	224.7	10.08	2.2	7.0 8.5	79.61
43	...½(A+B),D	...	...	...	63.0	28.07	1.1	7.0 10.0	79.61
44	Σ 105	P. M. 100	1 10 53	+65 32	182.3	2.90	1.1	...	79.78
45	Σ 112	O. Arg. 1406	1 13 40	+45 42	327.2	22.80	1.1	...	79.78
46	Σ 113	42 Ceti	1 13 40	— 1 8	347.8	1.40	2.2	6.5 7.8	79.78
47	h 2036	L. 2416	1 14 4	—16 26	24.1	1.66	5.3	7.5 8.0	79.79
48	Σ 114	Anon.	1 15 4	+72 13	353.4	3.83	2.1	...	79.75
49	β 4	L. 2483	1 16 34	+10 44	119.1	0.52	1.½	7.0 7.0	79.66
50	Secchi	Lac. 381	1 17 52	—24 59	76.5	2.62	1.1	7.0 9.0	79.77
51	Σ 120	Ceti 202	1 18 58	— 6 34	278.9	7.46	1.1	7.0 11.0	79.73
52	Σ 122	L. 2632	1 20 42	+ 2 55	327.4	6.12	1.1	7.8 9.0	79.66
53	Σ 118	P. M. 113	1 20 47	+82 44	69.8	11.68	2.2	8.5 9.5	79.77
54	Σ 125	L. 2635	1 20 50	— 0 46	350.6	31.21	1.1	8.0 10.0	79.68
55	Σ 127	P. M. 121	1 24 59	+78 32	186.0	24.67	1.1	8.2 9.0	79.75
56	h 1085	Anon.	1 30 25	+63 6	296.0	3.92	2.2	8.5 9.0	79.77
57	h 17	Anon.	1 32 46	+11 35	280.8	7.81	1.1	9.0 10.0	79.66
58	h 641	L. 3053	1 33 33	— 3 8	129.5	5.57	2.2	8.5 11.0	79.76
59	Σ 146	W i 600	1 34 57	+ 9 30	305.6	24.05	2.1	8.0 8.0	79.66
60	Σ 147	χ' Ceti	1 35 49	—11 55	87.2	3.70	2.2	6.0 7.0	79.72

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
61	Σ 160	Anon.	1 40 16	— 3 0	269.4	9.66	1.1	9.0 10.0	79.77
62	Σ 166	W i 720	1 41 48	— 3 56	0.4	8.00	1.1	8.5 9.0	79.77
63	β	L. 3289	1 41 50	— 1 33	350.3	1.4	3.0	8.5 9.5	79.79
64	H. V. E.	Anon.	1 42	+45 29	146.2	5.73	1.1	8.0 8.5	79.78
65	h 644	L. 3303	1 42 22	+ 7 5	277.5	17.03	1.1	7.5 13.0	79.66
66	Σ 171	P. M. 157	1 42 40	— 2 1	159.3	29.98	1.1	8.5 8.5	79.77
67	Σ 173 rej.	L. 3344	1 43 38	+13 45	203.4	22.48	1.1	8.5 10.0	79.66
68	Σ 170	P. M. 174	1 44 24	+75 38	244.6	3.37	2.2	7.0 8.5	79.75
69	Σ 177	W i 783	1 45 13	+ 4 21	120.3	34.54	1.1	9.0 9.5	79.74
70	Σ 3113	L. 3406	1 46 4	+44 2	272.2	1.19	1.1	8.5 8.5	79.61
71	β 183	L. 3487	1 47 21	—17 20	226.7	2.42	1.1	8.0 9.5	79.77
72	Σ 199	O. Arg. 2289	1 55 58	+67 6	20.4	36.27	1.1	...	79.78
73	Σ 206	W i 982	1 56 27	+10 47	133.6	31.38	1.1	8.0 9.0	79.66
74	Σ 214	O. Arg. 1067	2 1 2	+15 1	189.2	4.96	1.1	8.0 9.5	79.66
75	Σ 222	59 Andromedæ	2 3 36	+38 28	34.2	16.94	1.1	...	79.78
76	Σ 231	66 Ceti	2 6 39	— 2 57	230.0	15.88	1.1	6.0 8.0	79.68
77	Σ 237	Schj. 654	2 9 17	+10 13	237.4	14.46	1.1	8.0 8.3	79.66
78	Σ 233	P. M. 208	2 9 26	+75 49	273.8	2.6	1.0	...	79.77
79	Σ 238	P. M. 212	2 9 56	+36 56	354.7	11.16	1.1	...	79.78
80	Σ 246	L. 4239	2 11 28	+33 56	122.1	10.45	1.1	...	79.78
81	Σ 247 rej.	DM 320	2 12 7	+ 3 37	32.2	7.37	1.1	10.0 10.5	79.66
82	β 437	L. 4291	2 12 26	+ 3 39	29.6	5.81	1.1	8.0 12.0	79.66
83	Σ 248	W ii 278	2 13 31	+42 14	155.1	1.93	1.1	8.5 9.0	79.61
84	Σ 250	W ii 287	2 13 57	+36 52	135.4	2.73	1.1	8.0 9.0	79.61
85	Σ 251	P. M. 224	2 14 21	+38 50	265.2	2.24	1.1	8.0 9.0	79.61
86	Σ 261	P. M. 232	2 17 55	+10 57	67.3	2.99	2.2	8.5 9.0	79.66
87	Σ 271	L. 4608	2 23 38	+24 42	181.6	12.06	1.1	...	79.78
88	Σ 276	P. M. 413	2 26 20	+ 5 48	254.3	2.14	1.1	8.5 8.5	79.66
89	Σ 280	L. 4773	2 28 9	— 6 10	346.7	3.52	2.2	8.0 8.0	79.70
90	h 3506	Lac. 783	2 28 35	—28 46	242.4	10.65	1.1	4.5 7.5	79.79

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
91	Σ 282	O. Arg. 2973	2 31 8	+65 8	292.4	7.24	2.2	...	79.78
92	Σ 287	L. 4903	2 32 24	+14 20	71.5	6.32	1.1	...	79.66
93	h 1123	W ii 778	2 34 15	+42 17	247.2	20.21	2.2	8.0 8.2	79.61
94	0 Σ 44	W ii 785	2 34 23	+42 12	51.2	1.56	1.1	8.0 9.0	79.61
95	0 Σ 45	W ii 573	2 34 40	+ 4 21	294.3	2.03	1.1	6.5 10.0	79.74
96	h 2155	L. 4954	2 35 1	+42 18	320.5	17.19	1.1	8.0 9.5	79.61
97	Σ 295	84 Ceti	2 35 5	— 1 12	323.2	4.44	3.2	6.0 11.0	79.75
98	Σ 299	γ Ceti	2 37 5	+ 2 44	287.2	3.19	1.1	4.0 10.0	79.74
99	Σ 303	W ii 644	2 38 35	— 2 28	180.5	5.49	2.2	8.0 9.0	79.73
100	Br. 394	Lac. 850	2 38 54	—26 0	187.1	11.71	1.1	...	79.90
101	Σ 308	Anon.	2 41 40	—10 22	158.1	12.37	1.1	...	79.78
102	β 10	L. 5276	2 44 23	— 5 29	100.1	2.56	1.1	8.0 12.0	79.68
103	Σ 330	Ceti 478	2 51 4	— 1 3	191.5	8.71	2.2	7.5 9.5	79.73
104	Σ 334	L. 5523	2 53 1	+ 6 10	315.8	1.5	1.0	...	79.90
105	Σ 341	L. 5652	2 56 57	— 2 33	227.1	8.59	3.2	8.0 10.5	79.69
106	Σ 355	W ii 1056	3 0 54	+ 7 56	145.7	2.54	1.1	8.5 9.0	79.66
107	Σ 358	W ii 1091	3 2 45	— 4 9	350.8	15.	1.0	9.0 12.0	79.66
108	h 3554	L. 5959	3 6 42	— 3 22	347.6	20.04	1.1	8.0 11.0	79.66
109	β 84	W iii 147	3 10 5	— 6 22	30.6	0.74	1.2	6.0 8.0	79.78
110	Σ 371	L. 6023	3 10 23	+46 35	82.0	2.85	1.1	8.0 10.0	79.61
111	Jacob	τ ⁴ Eridani	3 14 11	—22 12	280.0	4.9	1.0	...	79.90
112	Schj. 1001	L. 6327	3 19 19	— 1 35	183.4	17.20	1.1	8.0 9.0	79.66
113	Σ 393	L. 6352	3 20 11	— 1 27	258.2	16.09	1.1	8.0 10.5	79.66
114	Σ 394	L. 6367	3 21 6	+20 3	162.7	6.79	1.1	7.0 8.0	79.66
115	H iv 89	L. 6436	3 23 33	+19 42	147.3	20.40	1.1	8.0 9.5	79.66
116	Σ 407	W iii 408	3 24 16	—11 33	44.5	3.14	1.1	8.0 10.0	79.74
117	Σ 408	W iii 412	3 24 42	— 4 41	337.4	1.30	1.1	...	79.79
118	Σ 414	L. 6568	3 27 33	+19 24	182.8	7.42	1.1	7.5 7.5	79.66
119	Σ 416 rej.	DM 556	3 28 2	+19 25	52.7	25.89	1.1	8.5 9.5	79.66
120	Σ 438	L. 6831	3 36 26	+22 21	240.3	1.80	1.1	8.0 8.8	79.66

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch +1880
			h. m. s.	° ' "	°	"			
121	Σ 439	P. M. 370	3 37 3	+31 47	37.3	23.38	1.1	8.0 10.0	79.61
122	Σ 442	DM 538	3 37 55	+22 21	263.1	2.	1.0	9.0 10.0	79.66
123	H. A H.	Anon.	3 38	+22 21	173.3	28.27	1.1	8.0 12.0	79.66
124	Σ 444	15 Pleiadum	3 38 43	+22 46	335.1	2.80	1.1	7.5 10.5	79.66
125	Σ 451 rej.	L. 6986	3 40 6	—13 42	321.5	20.06	1.1	8.0 8.5	79.74
126	Σ 456 rej.	DM 664	3 42 9	+ 1 15	118.9	21.80	1.1	8.5 9.5	79.66
127	β 401	L. 7109	3 44 10	— 1 53	255.8	4.00	1.1	6.0 10.0	79.77
128	Σ 468	Anon.	3 48 7	— 2 10	97.1	20.80	1.1	8.5 9.5	79.66
129	Σ 478	W iii 1016	3 53 11	+11 12	136.2	9.82	1.1	8.0 9.0	79.74
130	Σ 476	L. 7368	3 53 36	+38 20	285.0	20.11	1.1	7.5 8.5	79.61
131	Σ 487 A,B	W iii 1054	3 55 12	—10 47	8.5	12.33	1.1	...	79.74
132	... A,C	...	...	...	233.6	22.	1.0	...	79.74
133	Σ 482	W iii 1167	3 55 48	+21 48	123.3	13.20	1.1	8.0 9.5	79.66
134	Σ 483	L. 7439	3 56 2	+39 11	172.6	2.03	1.1	8.0 9.5	79.61
135	Σ 493	W iii 1146	4 0 22	+ 5 22	92.9	1.67	2.2	8.0 8.5	79.66
136	Σ 515	L. 7879	4 7 8	+ 2 34	42.6	3.18	2.1	8.0 8.5	79.66
137	Σ 512	W iv 79	4 7 10	+45 6	224.2	5.16	3.3	7.5 7.5	79.61
138	Σ 516	L. 8027	4 8 41	—10 33	149.4	6.13	1.1	6.0 10.0	79.73
139	Σ 518 A,B	40 Eridani	4 9 46	— 7 50	105.6	82.42	1.1	4.0 8.5	79.76
140	... A,D	...	...	...	132.9	35.78	1.2	... 12.8	79.77
141	... B,C	...	...	...	120.0	3.29	1.1	... 10.5	79.52
142	Σ 525 rej. A,B	W iv 217	4 12 34	— 2 59	243.6	44.05	1.1	8.0 9.0	79.66
143	... B,C	...	...	...	168.3	7.29	1.1	9.0 9.5	79.66
144	Σ 527	L. 8107	4 13 13	— 7 43	190.7	5.90	1.1	7.0 10.0	79.84
145	Σ 529	L. 8141	4 15 28	+28 7	14.6	4.66	1.1	8.0 11.0	79.75
146	Σ 536	L. 8222	4 16 13	— 4 58	159.0	1.77	1.1	...	79.77
147	O. S.	L. 8521	4 23 55	—25 28	346.8	6.77	1.1	...	79.90
148	Σ 562	Tauri 278	4 27 35	+22 27	268.0	2.20	1.1	7.5 11.0	79.66
149	Σ 564	Anon.	4 27 42	—12 23	343.0	3.65	1.1	...	79.79
150	β	46 Eridani	4 28 4	— 7 0	48.0	1.3	1.0	6.0 9.0	79.78

Number.	Double Star.	Name.	Mean R. A.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
151	Σ 609	DM 865	4 43 40	+ 0 57	74.0	2.54	1.1	...	79.77
152	Σ 607	DM 744	4 45 48	+25 18	249.5	14.25	1.1	9.0 11.0	79.66
153	0 Σ 91	L. 9268	4 49 57	+ 2 59	237.7	0.73	1.1	8.0 8.5	79.75
154	β 314	Leporis 3	4 53 39	—16 34	331.9	0.5	1.0	...	79.78
155	Σ 651	W v 38	5 4 14	— 7 13	54.2	17.17	1.1	...	79.79
156	Σ 661	κ Leporis	5 7 41	—13 5	359.6	2.52	1.1	...	79.66
157	β 555 B,C	Rigel	5 8 46	— 8 20	158.7	0.42	1.½	6.0 6.5	79.76
158	Σ 668	Rigel	5 8 46	— 8 20	200.7	9.55	5.5	1.0 ...	79.70
159	A,½(B+C) Σ 667	W v 165	5 8 52	— 7 13	311.4	4.08	1.1	7.0 10.0	79.74
160	h 3750	L. 10063	5 15 20	—21 22	279.7	3.04	1.1	4.5 7.0	79.78
161	Σ 701	Orionis 88	5 17 33	— 8 32	144.0	5.75	1.1	...	79.74
162	Σ 702	L. 10134	5 18 21	+ 2 15	76.3	8.76	1.1	8.0 9.0	79.74
163	Σ 706	Anon.	5 18 38	+30 14	39.7	3.82	1.1	8.0 10.0	79.75
164	H vi 68	L. 10165	5 19 0	— 2 57	279.7	120.	1.0	...	79.82
165	Σ 712	L. 10195	5 20 15	+ 2 50	53.6	3.03	2.2	...	79.78
166	β 320	β Leporis	5 23 6	—20 51	286.3	2.57	2.1	2.8 7.8	79.77
167	Σ 743	P. M. 602	5 28 47	— 4 28	278.4	2.21	1.1	...	79.77
168	Σ 741	L. 10512	5 28 48	— 0 12	283.9	10.22	1.1	...	79.79
169	H.V. E.	Anon.	5 29 2	+ 7 11	242.9	43.50	1.1	...	79.82
170	Σ 748 A,B	θ ¹ Orionis	5 29 23	— 5 28	59.1	13.02	1.1	5.5 7.0	79.66
171	... A,C	...	...	...	311.5	12.86	1.1	... 7.0	79.66
172	... B,D	...	...	...	298.9	19.15	1.1	... 8.0	79.66
173	... C,c	...	...	...	349.0	3.53	2.1	... 11.0	79.74
174	... C,D	...	...	...	31.4	8.35	1.1	...	79.66
175	Σ 752 A,B	ι Orionis	5 29 34	— 5 59	142.2	11.22	1.1	...	79.66
176	H. C. Zones	Anon.	5 30	— 1 0	39.7	18.	1.0	...	79.82
177	Σ 754	Orionis 158	5 30 44	— 6 8	286.3	5.40	1.1	...	79.74
178	Σ 755	...	5 31 51	+23 13	315.7	5.85	1.1	8.5 9.0	79.66
179	Σ 759	Anon.	5 31 47	+17 41	322.9	30.09	1.1	8.0 8.5	79.66
180	Σ 763	P. M. 614	5 32 40	+10 12	318.6	5.65	1.1	8.0 9.0	79.66

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			h. m. s.	° ' "	°	"			
181	Σ 774	ζ Orionis	5 34 42	— 2 0	152.6	2.60	2.2	3.8 5.2	79.73
182	Σ 790	Orionis 187	5 40 6	— 4 19	89.0	7.42	1.1	...	79.79
183	Σ 839	Anon.	5 58 52	— 2 43	285.3	5.06	2.2	8.0 8.2	79.76
184	Σ 871	W vi 93	6 5 27	— 0 44	304.9	7.38	1.1	...	79.79
185	H iv 81	ν ¹ Can. Maj.	6 31 8	—18 34	261.1	17.47	1.1	...	79.79
186	A. G. C. 1	Sirius	6 39 52	—16 33	46.5	10.29	2.1	1.0 7.0	79.75
187	Σ 1011	Can. Maj. 124	6 55 24	—15 9	297.3	4.69	1.1	9.0 9.5	79.74
188	h 750	Anon.	7 0 13	— 2 7	91.4	8.63	1.1	...	79.77
189	h 2362	Anon.	7 1 51	+ 3 33	187.2	28.63	1.1	...	79.82
190	Σ 1034	W vii 37	7 3 35	— 8 7	15.6	2.70	1.1	...	79.77
191	Σ 1045	L. 14013	7 6 42	— 2 58	228.3	5.82	1.1	...	79.79
192	h 3938	L. 14105	7 8 43	—22 42	248.8	20.11	1.1	...	79.77
193	Σ 1056	L. 14107	7 9 30	— 1 39	300.3	3.8	1.0	...	79.82
194	Σ 1103	L. 14601	7 24 11	+ 5 30	243.0	4.44	1.1	...	79.77
195	β 201	L. 14945	7 33 41	—20 0	330.8	2.79	1.1	7.0 8.0	80.16
196	Σ 1124	W vii 959	7 33 50	+22 5	324.7	19.49	1.1	...	79.82
197	Σ 1146	5 Puppis	7 42 20	—11 54	14.1	3.20	2.2	...	79.77
198	0 Σ 182	L. 15349	7 46 24	+ 3 42	34.7	1.39	1.1	...	79.77
199	β 334	L. 15933	8 2 3	—21 42	354.2	2.4	1.0	...	80.18
200	H. A. H. 9	W. M. Z. (221) 28	8 12 26	—26 54	293.6	3.26	1.1	8.5 9.0	80.22
201	Σ 1216	L. 16375	8 15 15	— 1 13	166.4	0.62	1.½	...	80.22
202	Σ 1260	L. 17455	8 34 59	—11 45	299.8	5.08	1.1	...	80.22
203	β 587	15 Hydræ	8 45 41	— 6 44	152.2	0.42	1.½	...	80.22
204	Σ 1295	17 Hydræ	8 49 37	— 7 31	357.9	4.14	1.1	7.0 7.5	80.23
205	β 210	L. 17696	8 51 18	—16 58	181.0	2.54	2.2	6.5 6.5	79.25
206	Σ 1308	L. 17927	8 58 59	— 3 31	84.0	10.69	1.1	...	80.22
207	h 4172	Anon.	9 1 5	—24 55	217.4	7.03	2.1	7.5 8.5	80.22
208	W. M. C. Z.	Lac. 3873	9 25 26	—28 14	239.0	0.62	1.½	7.0 8.0	80.22
209	β 217	W. M. Z. (248) 9	10 1 16	—24 8	277.6	2.08	2.2	...	80.22
210	h 4305	Anon.	10 14 54	—23 2	214.5	17.20	1.1	7.5 8.8	80.22

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1880+
			h. m. s.	° ' "	°	"			
211	β	Lamont XII 701	10 16 26	—13 4	101.4	1.0	1.0	8.5 11.0	80.24
212	Σ 1440	L. 20356	10 23 46	— 3 18	347.9	15.43	1.1	7.0 9.0	80.24
213	h 4337	O. Arg. 10765	10 31 45	—18 44	72.0	10.31	1.1	8.5 10.0	80.22
214	Σ 1474	L. 20799	10 41 43	—14 38	17.7	6.86	1.1	...	80.22
215	Σ 1500	L. 21116	10 53 55	— 2 50	313.8	1.42	2.2	8.0 8.0	80.22
216	O. S.	O. Arg. 11040	10 54 18	—25 24	335.1	6.30	1.1	...	80.22
217	H i 77	Anon.	10 56 12	—15 8	15.3	2.91	1.1	...	80.22
218	Σ 1506	L. 21238	10 58 38	— 3 34	215.0	10.70	2.2	7.0 9.0	80.24
219	β 220	Crateris 22	11 6 34	—17 51	323.8	0.87	1.1	6.0 7.0	80.22
220	Σ 1529	L. 21586	11 13 17	— 1 0	251.0	9.65	1.1	6.5 7.5	80.22
221	β 26	L. 21697	11 17 42	— 9 46	65.4	2.62	1.1	...	80.33
222	S 627	Anon.	11 23 15	—16 41	331.6	28.30	1.1	6.0 ...	80.29
223	A, $\frac{1}{2}$ (B+C) ... B, C	...	...	...	224.9	0.82	1. $\frac{1}{2}$	8.0 9.0	80.29
224	Jacob 143	Hydræ 271	11 23 41	—23 47	78.2	8.15	1.1	...	80.37
225	H iii 96	17 Crateris	11 26 19	—28 36	28.8	9.04	2.2	...	80.22
226	β 456	L. 22020	11 30 45	—11 41	255.2	0.72	1. $\frac{1}{2}$	9.5 9.5	80.24
227	h 4478	β Hydræ	11 46 51	—33 14	345.1	1.88	2.2	4.5 6.0	80.23
228	h 4479	O. Arg. 11733	11 47 16	—23 55	93.4	6.87	1.1	8.0 9.5	80.36
229	h 4481	L. 22513	11 51 12	—21 52	196.9	3.2	1.0	...	80.37
230	Σ 1593	W xi 959	11 57 23	— 1 47	18.7	1.34	1.1	8.0 8.0	80.33
231	h 4496	Anon.	12 0 1	—18 14	27.8	12.16	1.1	8.0 9.0	80.36
232	Σ 1605	W xii 28	12 4 19	— 1 34	277.8	23.85	1.1	7.8 8.8	80.29
233	Σ 3080	W xii 50	12 5 24	—13 2	199.6	4.6	1.0	8.0 9.5	80.35
234	Σ 1635	L. 23131	12 14 57	—10 48	173.5	13.37	1.1	7.5 8.5	80.35
235	O. S. 71	O. Arg. 12151	12 19 22	—27 45	330.0	13.46	1.1	8.0 10.5	80.33
236	Sh 145	δ Corvi	12 23 40	—15 51	214.0	24.43	1.1	4.0 9.0	80.36
237	Σ 1649	W xii 401	12 25 24	—10 24	194.9	15.40	1.1	...	80.22
238	Σ 1664	L. 23613	12 32 7	—10 51	249.2	21.34	1.1	7.0 8.5	80.32
239	β 607	Schj. 4572	12 35 2	— 0 48	314.5	1.08	2.2	9.0 11.0	80.34
240	Σ 1670	γ Virginis	12 35 35	— 0 48	156.9	5.13	6.6	...	80.32

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° /	°	//			
241	O. S.	Anon.	12 40 2	—21 47	272.4	1.5	1.0	9.0 9.5	79.36
242	Σ 1690	W xii 831	12 50 4	— 4 13	146.6	5.93	2.1	7.5 9.0	80.32
243	O Σ 256	L. 24098	12 50 17	— 0 18	245.6	0.81	1.1	...	80.37
244	O. S. 73	Anon.	12 52	—12 29	65.1	2.03	3.3	7.8 8.0	80.30
245	Σ 1704	44 Virginis	12 53 29	— 3 10	52.9	20.59	1.1	6.0 10.0	80.36
246	A. G. C. 5	46 Virginis	12 54 25	— 2 43	150.5	1.27	3.2	6.0 8.0	80.38
247	β	48 Virginis	12 57 43	— 3 1	227.3	0.6	1.0	...	80.35
248	β 609	W xiii 27	13 4 31	— 4 18	356.2	0.82	2.½	7.0 10.0	80.34
249	β 221	L. 24532	13 6 54	—14 49	46.4	1.52	2.2	8.0 10.0	80.36
250	H ii 45	54 Virginis	13 7 3	—18 11	33.1	5.26	4.3	...	80.33
251	β 342	O. Arg. 12741	13 8 49	—18 17	33.8	3.96	4.4	...	80.38
252	O. S. 74	Anon.	13 9	—23 35	333.5	12.2	1.0	8.0 10.0	80.36
253	O. S.	Anon.	13 15	+30 58	175.1	0.42	1.½	7.5 7.5	79.30
254	Σ 1742	W xiii 267	13 18 12	+ 2 2	350.5	1.20	3.3	7.5 8.0	80.31
255	O. S. 76	O. Arg. 12867	13 19 43	—22 37	354.2	1.56	1.1	8.0 9.0	80.35
256	h 2653	Anon.	13 22 46	—17 25	237.2	20.79	1.1	8.0 12.0	80.34
257	β 114	W xiii 438	13 28 0	— 8 0	137.0	1.50	4.2	7.9 8.0	80.33
258	H n 69	f. Hydræ	13 30 9	—25 53	192.0	10.04	2.2	6.4 7.6	80.38
259	O. S.	Anon.	13 31	—14 10	263.1	4.58	1.1	8.5 11.0	80.42
260	Σ 1763	81 Virginis	13 31 18	— 7 16	41.2	2.93	2.2	7.0 8.0	80.37
261	h 4604	W.M.C.Z. (25)3	13 34 4	—27 38	279.0	15.51	3.3	8.3 10.5	80.38
262	h 2671	L. 25285	13 36 37	—24 22	70.0	27.84	2.2	9.0 9.8	80.38
263	h 2674	Anon.	13 38 27	—19 18	5.2	22.93	1.1	8.0 9.0	80.42
264	Σ 3081	W xiii 645	13 38 47	—11 15	67.8	2.08	2.2	8.0 8.5	80.33
265	β A,B	86 Virginis	13 39 33	—11 49	299.9	1.63	3.2	...	80.42
266	h 4617	O. Arg. 13176	13 43 54	—29 17	259.7	1.27	1.1	8.0 10.0	80.34
267	h 4637	Anon.	13 50 45	—11 58	137.7	12.98	2.2	9.0 9.5	80.37
268	β 344	O. Arg. 12385	13 52 23	—24 58	124.4	3.31	2.2	8.0 9.0	80.33
269	h 4650	W. T. Z. (118)8	14 0 5	—28 37	60.5	10.	1.0	9.0 12.0	80.35
270	h 4661	O. Arg. 13452	14 5 8	—28 20	49.0	2.	2.0	...	80.38

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
271	h 4664	O. Arg. 13477	14 7 33	—28 41	14.8	17.74	3.3	8.2 9.0	80.38
272	H. A. H. 27	W.M.Z. (116)37	14 10 39	—27 16	72.4	5.99	1.1	8.0 9.0	80.35
273	β 116	L. 26177	14 13 3	—13 9	278.3	3.08	1.1	...	80.37
274	Σ 1833	L. 26267	14 16 18	— 7 13	167.3	5.50	1.1	6.0 6.5	80.45
275	O. S.	W. C. 5948	14 18 15	—27 35	275.6	0.82	2.½	8.0 9.2	80.38
276	β 225 B,C	χ Tur. Sol.	14 18 48	—19 26	101.0	1.36	2.2	8.0 9.2	80.38
277	Σ 1847	W xiv 379	14 22 14	— 9 40	256.9	23.24	1.1	...	80.37
278	H.V.E.	W xiv 388	14 22 58	—14 29	198.7	3.70	5.5	8.6 9.4	80.33
279	β 117	L. 26481	14 24 41	—15 5	92.0	2.41	1.1	7.5 8.5	80.38
280	h 2723	Anon.	14 25 24	—23 30	137.2	27.23	1.1	8.0 10.5	80.41
281	W. M. C. Z.	O. Arg. 13760	14 30 24	—29 10	111.3	20.12	2.2	8.0 8.8	80.35
282	β 226	L. 26665	14 32 5	—21 49	83.1	0.99	1.2	8.0 8.0	80.34
283	β 345	Lac. 6051	14 34 40	—29 11	299.4	0.90	1.1	7.8 8.5	80.42
284	Σ 1869	P. M. 1646	14 36 22	— 5 27	131.4	25.90	2.2	8.3 9.3	80.44
285	Sh 184	54 Hydræ	14 39 4	—24 56	129.4	8.90	2.2	5.0 7.0	80.42
286	Σ 1876	L. 26890	14 40 2	— 6 53	70.7	1.26	1.1	...	80.32
287	β 617 B,C	L. 26952	14 42 23	—23 45	337.2	2.14	2.2	8.8 11.5	80.38
288	β 118	O. Arg. 14034	14 47 1	—16 1	307.6	2.05	1.1	9.0 10.0	80.35
289	h 4716	Anon.	14 49 22	—24 10	357.8	2.92	1.1	9.0 10.0	80.44
290	Sh 190	Piazzi xiv 212	14 50 27	—20 52	289.5	15.25	1.1	8.0 9.5	80.35
291	β 239	59 Hydræ	14 51 33	—27 10	307.4	0.90	4.4	6.0 7.0	80.38
292	h 2757	L. 27229	14 51 47	—21 55	94.1	12.17	2.2	8.2 9.8	80.35
293	Σ 1899	L. 27342	14 55 21	— 2 41	66.6	28.84	2.2	6.5 10.0	79.30
294	Σ 3090	L. 27568	15 2 32	— 0 31	276.4	1.60	2.2	8.0 8.0	80.35
295	β 350	Lac. 6291	15 8 29	—27 9	157.5	1.23	1.1	7.0 8.0	80.44
296	β 352	O. Arg. 14427	15 10 43	—26 33	65.1	14.37	3.3	7.8 9.0	80.36
297	β 227	B. A. C. 5039	15 12 7	—23 50	180.2	1.90	1.1	7.0 9.5	80.42
298	h 4767	W.M.C.Z. (31)9	15 17 59	—26 30	142.2	32.62	2.2	8.0 9.8	80.39
299	H.V.E.	Anon.	15 18	—26 20	28.2	16.05	1.1	8.5 10.5	80.40
300	h 4769	L. 28062	15 18 24	—21 30	192.4	9.48	2.2	8.2 9.5	80.37

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
301	h 4774	Lac. 6395	15 21 42	—28 27	6.5	9.17	1.2	6.8 10.0	80.39
301	Arg.S.54 A,B	O. Arg. 14768	15 34 30	—29 46	22.9	35.67	1.1	8.5 9.0	80.35
303	... A,C	...	...	...	328.0	60.	1.0	... 10.5	80.35
304	... A,D	...	...	...	320.1	89.10	1.1	... 9.5	80.35
305	h 4807	W. C. 6502	15 40 31	—20 52	1.9	10.35	1.1	8.0 11.0	80.44
306	β 36	2 Scorpii	15 46 24	—24 58	275.4	2.80	1.1	5.0 7.5	80.38
307	Sh 213	L. 29043	15 52 9	—19 35	319.0	17.83	4.4	8.0 8.6	80.38
308	h 4826	W.M.C.Z.(15)115	15 54 36	—29 22	247.9	5.02	2.2	9.0 9.8	80.42
309	β 38	L. 29136	15 55 39	—24 41	351.5	4.07	1.1	8.5 10.0	80.48
310	Σ 1998 A,B	ξ Scorpii	15 57 46	—11 2	188.8	1.11	2.2	...	80.36
311	... A,C	...	...	...	72.7	7.06	1.1	...	80.40
312	β 39	11 Scorpii	16 0 57	—12 25	256.9	3.20	1.1	6.0 9.0	80.48
313	h 4839	c ¹ Scorpii	16 4 51	—28 6	77.2	4.36	2.2	6.0 8.2	80.42
314	β 120 A,B	ν Scorpii	16 5 1	—19 9	1.0	0.7	1.0	...	80.40
315	... C,D	...	...	...	43.2	2.07	1.1	...	80.40
316	Σ 2023	P. M. 1794	16 8 36	+ 5 50	230.8	1.6	1.0	...	80.32
317	β 624	O. Arg. 15565	16 15 42	—22 50	320.9	1.1	1.0	...	80.38
318	O. S.	O. Arg. 15637	16 19 49	—26 55	344.0	9.09	1.1	8.0 11.0	80.42
319	Σ 2046	P. M. 1820	16 19 51	+64 39	224.3	8.21	1.1	9.0 10.0	79.31
320	Σ 3105	L. 30053	16 25 21	— 6 46	42.7	0.72	2.½	8.0 8.2	80.38
321	Σ 3106	W xvi 912	16 49 17	— 4 58	66.2	2.28	2.1	...	80.44
322	Sh 240	Piazzi xvi 236	16 50 0	—19 21	230.8	4.84	2.2	6.5 7.8	80.47
323	h 4902	L. 30779	16 50 26	—27 35	30.0	11.11	2.1	8.0 9.0	80.44
324	h 589	L. 31181	17 3 29	—24 47	300.7	9.78	1.1	8.5 9.5	80.46
325	Σ 2132	L. 31290	17 6 26	— 3 54	109.9	1.6	2.0	8.0 9.0	80.44
326	Sh 243	36 Ophiuchi	17 7 59	—26 25	21.8	4.22	1.1	...	80.60
327	β 282 A,C	Lamont XII 2082	17 8 30	—14 27	153.1	4.25	1.1	6.0 10.5	80.44
328	h 4932	O. Arg. 16530	17 8 43	—18 3	226.2	10.00	1.1	8.5 10.5	80.46
329	O. S.	Anon.	17 11	—16 55	288.7	16.87	2.2	8.0 8.5	80.46
330	O. S.	O. Arg. 16653	17 14 13	—17 55	44.3	0.82	2.½	8.5 9.5	80.40

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			h. m. s.	° /	°	''			
331	h 4953	O. Arg. 16774	17 19 19	—19 25	174.2	18.14	2.2	8.5 9.5	80.40
332	Arg. S. 66	L. 31784	17 22 42	—17 43	194.9	8.46	1.1	...	80.38
333	Σ 2173	B. A. C. 5910	17 24 14	— 0 58	...	0.52	0.½	6.0 6.5	80.55
334	Σ 2183 rej A,C	L. 32017	17 29 5	— 5 51	13.4	28.30	1.1	7.0 9.0	80.40
335	Σ 2191	L. 32179	17 33 25	— 4 54	266.6	26.68	2.2	7.5 8.2	79.96
336	Arg. S. 67	O. Arg. 17099	17 35 30	—29 53	290.3	36.81	1.1	8.0 8.5	80.38
337	H. A. H.	W.M.Z. (27)48	17 44 38	—28 27	8.7	6.54	2.2	8.5 9.8	80.44
338	W. M. C. Z.	O. Arg. 17320	17 46 12	—28 40	2.2	2.01	1.1	10.0 11.0	80.52
339	Σ 2244	Tauri Pon. 9	17 50 55	+ 0 5	276.9	1.34	1.2	7.0 7.6	80.56
340	Σ 2262	τ Ophiuchi	17 56 33	— 8 11	249.7	1.78	3.3	5.5 6.5	80.07
341	h 5009	W. C. 7599	17 56 54	—24 15	19.9	3.86	1.1	9.0 9.5	80.58
342	H. V. E.	Anon.	17 57	—25 28	15.9	4.46	1.1	9.0 9.2	80.58
343	h 5010	O. Arg. 17564	17 57 15	—24 20	348.4	3.57	1.1	9.0 9.5	79.59
344	Σ 2272	70 p Ophiuchi	17 59 23	+ 2 32	67.9	2.94	5.5	...	79.64
345	O. S. 88	Anon.	18 0	—19 0	276.9	19.81	1.1	9.0 9.5	80.57
346	β 244	L. 33188	18 1 1	—27 53	257.3	2.01	1.1	...	80.58
347	β 132	B. A. C. 6158	18 4 7	—19 52	59.2	1.03	3.2	7.5 7.6	80.14
348	h 5035	μ Sagittarii	18 6 35	—21 5	259.3	17.12	1.1	5.0 9.0	80.53
349	β 131	L. 33443	18 6 42	—15 38	279.6	2.71	1.1	...	80.58
350	h 2823	Anon.	18 7 55	—19 59	332.3	20.34	2.2	8.8 9.2	80.51
351	β 285	O. Arg. 17953	18 9 26	—25 3	324.2	1.2	1.0	8.0 10.0	80.60
352	h 2827	Anon.	18 9 59	—19 55	251.5	20.16	1.1	9.0 9.5	80.58
353	Sh 264	L. 33642	18 11 40	—18 40	51.4	17.40	1.1	6.0 8.0	79.27
354	β 48	L. 33729	18 13 54	—19 43	0.6	2.36	1.1	9.0 9.5	80.58
355	O. S.	Anon.	18 16	—18 55	84.6	6.72	1.1	8.5 9.0	79.30
356	β 49	O. Arg. 18155	18 17 3	—19 37	44.8	7.9	2.0	...	80.52
357	Jacob 201	21 Sagittarii	18 18 12	—20 36	295.4	2.15	1.2	5.0 8.0	80.56
358	β 247	L. 34253	18 25 37	— 9 27	169.0	7.42	1.1	7.0 10.0	80.59
359	Σ 2434 B,C	L. 35545	18 56 34	— 0 53	64.2	1.81	1.1	8.0 10.5	79.68
360	S 711	O. Arg. 19092	19 0 41	—27 1	123.4	45.87	1.1	7.5 8.5	80.38

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			h. m. s.	° ' "	°	"			
361	h 1373	Anon.	19 6	—18 20	242.1	9.04	1.1	9.5 10.0	80.44
362	β 138	L. 36013	19 6 37	—14 39	281.7	1.09	1.1	8.0 10.0	80.59
363	H. A. H. 95	L. 36414	19 14 38	+ 2 43	149.4	0.42	1.½	6.0 6.5	79.69
364	H. A. H.	O. Arg. 19458	19 15 56	—18 13	81.8	2.56	2.2	9.0 9.3	80.51
365	h 2866 A,B	O. Arg. 19469	19 16 29	—18 13	53.0	23.38	2.2	8.0 8.3	80.58
366	... A,C	...	...	...	137.1	23.91	1.1	...	80.58
367	... B,C	...	...	...	276.0	34.87	1.1	... 8.5	80.57
368	O. S.	Anon.	19 20	—16 11	195.4	4.84	2.2	6.8 7.3	80.62
369	β 423	O. Arg. 19560	19 20 18	—29 44	119.6	1.19	1.1	7.0 8.0	79.69
370	Σ 2541	L. 37113	19 30 12	—10 42	332.4	3.72	1.1	8.0 10.0	80.60
371	Σ 2545	L. 37207	19 32 8	—10 26	320.9	3.68	2.2	7.0 8.5	80.56
372	h 5144	Anon.	19 38 27	—25 49	9.4	10.32	2.2	7.5 8.8	80.10
373	A. C. 12	L. 38059	19 52 8	— 2 33	324.7	1.13	2.2	...	80.56
374	h 5164	O. Arg. 20141	19 53 31	—27 31	122.2	9.30	2.2	8.0 9.0	79.69
375	h 2918	L. 38161	19 54 58	—17 53	134.2	16.55	1.1	...	80.44
376	Σ 2646	Aquilæ 241	20 8 1	— 6 25	48.1	23.17	1.1	7.5 9.0	80.56
377	Arg. S. 84	O. Arg. 20438	20 15 24	—20 36	267.4	17.93	1.1	...	79.71
378	H. A. H.	Anon.	20 20	—27 10	55.0	2.77	1.1	8.5 9.0	79.79
379	II ii 51	ρ Capricorni	20 22 1	—18 13	172.1	3.14	1.1	5.0 7.0	79.71
380	H iv 71	σ Capricorni	20 23 1	—18 59	239.0	22.22	1.1	6.0 6.5	80.56
381	O. S.	Anon.	20 31	—26 55	245.3	1.42	2.1	8.2 8.5	79.78
382	h 921	Lamont IX 3926	20 35 21	— 4 56	37.3	9.36	1.1	...	80.56
383	β 267	Anon.	20 35 25	— 4 50	240.5	2.04	1.1	10.0 10.0	79.59
384	β 674	W. C. 9020	20 37 53	—21 19	103.4	1.35	2.1	8.0 10.8	79.78
385	h 5220	Lac. 8555	20 39 16	—27 18	354.8	17.99	1.1	8.0 9.0	80.52
386	β 154	L. 40292	20 46 6	—16 37	59.8	2.88	2.2	8.0 9.2	79.69
387	Σ 2745	12 Aquarii	20 57 44	— 6 18	190.8	2.91	2.2	5.8 7.8	80.58
388	h 5252	O. Arg. 21208	21 5 43	—15 29	320.3	3.10	1.1	...	80.56
389	H. V. E.	Anon.	21 8	— 1 20	59.9	99.40	1.1	9.0 9.5	79.66
390	Σ 2781	L. 41284	21 10 20	— 8 9	169.2	3.06	1.1	8.0 8.2	80.56

Number.	Double Star.	Name.	Mean R. A.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° ' "	°	"			
391	β 271	Lac. 8777	21 12 50	—26 51	231.8	2.30	2.2	6.5 9.0	79.69
392	Σ 2787	Schj. 8640	21 15 42	+ 1 31	19.4	22.62	1.1	...	79.78
393	β 272	L. 41564	21 17 50	—13 19	255.7	4.31	1.1	8.0 12.0	79.79
394	H. A. II.	O. Arg. 21368	21 18 33	—20 54	142.9	8.22	1.1	8.0 10.0	79.54
395	β 683	L. 41683	21 20 43	—20 44	197.3	2.5	1.0	8.5 12.0	79.79
396	β 165	L. 41954	21 27 55	— 3 59	178.4	4.74	1.1	8.0 10.5	79.79
397	Σ 2809	B. A. C. 7515	21 31 24	— 0 56	162.4	30.95	1.1	...	79.69
398	H.A.H. A,B	W xxi 950	21 40 57	—13 42	105.5	0.82	1.½	8.0 10.0	79.77
399	Σ 2826 A,C	...	...	...	79.4	3.93	1.1	8.0 9.0	79.54
400	O. S. 110	O. Arg. 21650	21 41 25	—27 42	175.9	2.82	1.1	8.0 9.5	79.75
401	h 3059	Lac. 8937	21 43 50	—28 30	253.7	24.91	1.1	7.0 11.0	79.75
402	h 615	L. 42645	21 47 7	—17 19	67.1	12.30	2.2	7.5 9.0	79.75
403	Σ 2838	Aquarii 100	21 48 21	— 3 52	185.0	19.79	1.1	...	80.56
404	Σ 2839 rej.	L. 42692	21 48 34	—12 32	274.2	30.90	1.1	7.5 9.5	79.77
405	h 3068	W.T. Z. (81)25	21 50 49	—28 21	287.4	10.45	2.1	8.2 11.0	79.76
406	Σ 2847	L. 42810	21 51 53	— 4 4	122.4	1.06	2.2	7.0 8.0	79.69
407	Σ 2848	L. 42827	21 52 1	+ 5 12	55.5	9.79	1.1	7.0 8.0	79.74
408	O. S. 111	11 Piscis Aus.	21 52 42	—28 12	35.6	11.75	5.4	7.0 10.0	79.76
409	β 256	η Piscis Aus.	21 53 56	—29 2	113.7	1.73	1.1	5.5 7.0	80.56
410	S 802	29 Aquarii	21 55 53	—17 33	243.4	3.68	1.1	...	80.56
411	β 475	L. 43305	22 6 16	— 8 36	230.6	1.	1.0	7.0 11.0	79.75
412	H n 56	41 Aquarii	22 7 40	—21 40	115.0	4.82	2.2	6.8 8.2	79.76
413	β 171	L. 43350	22 7 51	—21 38	257.9	11.4	1.0	8.5 12.0	79.75
414	O. S.	Anon.	22 8	—20 40	95.7	9.41	1.1	8.0 12.0	79.75
415	H n 102	Anon.	22 9 49	— 3 30	294.6	12.89	1.1	9.5 9.5	79.74
416	Σ 2885 rej.	P. M. 2689	22 9 56	— 8 17	98.8	21.96	1.1	8.0 12.0	79.75
417	Σ 2892 rej. A,B	P. M. 2697	22 12 55	—11 23	58.1	9.	1.0	... 12.0	79.75
418	... A,C	...	...	...	263.7	36.29	1.1	8.0 9.0	79.75
419	h 962 A,B	30 Pegasi	22 14 25	+ 5 11	17.3	5.97	2.1	... 11.0	79.74
420	... A,C	...	...	...	223.0	9.79	1.1	5.5 10.5	79.75

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° /	°	''			
421	Σ 2901	L. 43731	22 18 23	+ 3 13	144.6	3.00	1.1	9.0 9.5	79.76
422	Sh 345	53 Aquarii	22 20 3	—17 21	305.6	7.65	2.2	7.0 7.0	80.56
423	Σ 2909	ζ Aquarii	22 22 39	— 0 38	331.8	3.28	6.6	4.5 4.5	79.88
424	Σ 2913	L. 43936	22 24 14	— 8 44	330.0	7.73	1.1	8.0 9.0	79.75
425	Σ 2928	L. 44276	22 33 10	—13 14	135.8	4.27	10.10	8.5 8.7	79.83
426	Σ 2940	P. M. 2750	22 38 2	+72 6	138.8	2.78	1.1	9.0 10.0	79.75
427	h 1811	Lamont XI 3203	22 42 56	+12 29	153.7	5.61	1.1	8.5 9.0	79.74
428	Σ 2948	P. M. 2758	22 45 20	+65 55	3.0	2.70	2.2	7.0 9.0	79.75
429	Σ 2953	P. M. 2763	22 48 2	+60 17	136.2	8.53	1.1	8.0 11.0	79.75
430	O. S.	Anon.	22 52	— 9 7	132.5	2.46	2.1	7.0 8.0	80.56
431	h 1838	O. Arg. 24973	22 53 56	+66 26	265.9	2.10	2.2	10.0 11.0	79.75
432	Σ 2971	P. M. 2779	22 54 12	+77 51	2.9	5.34	2.2	8.0 9.0	79.62
433	Σ 2970	P. M. 2780	22 56 6	—11 57	36.7	8.02	1.1	8.5 9.5	79.74
434	h 3174	W xxiii 22	23 3 53	— 8 43	17.4	5.47	1.1	8.5 9.0	79.74
435	β 714	L. 45468	23 7 57	— 3 17	156.6	0.6	1.0	7.0 11.0	79.76
436	h 981	Lamont V 9129	23 8 2	+ 2 13	280.7	17.97	1.1	8.5 12.0	79.74
437	β 715	Aquarii 290	23 8 25	—11 21	257.2	3.08	1.1	6.0 11.5	79.77
438	Σ 2996	P. M. 2805	23 8 39	+81 10	105.3	5.14	1.1	8.5 9.0	79.75
439	h 5393	L. 45605	23 12 0	—25 37	304.6	18.92	1.1	8.0 10.0	79.77
440	h 5394	96 Aquarii	23 13 10	— 5 47	21.0	10.61	3.3	5.5 10.5	79.78
441	Σ 3003	P. M. 2813	23 13 22	+82 48	266.3	23.57	1.1	...	79.75
442	h 3189	L. 45801	23 17 23	— 0 22	133.2	41.67	1.1	...	79.74
443	Σ 3008	Piazzi xxiii 69	23 17 32	— 9 7	253.7	4.77	3.3	6.8 7.8	79.98
444	Σ 3011	P. M. 2820	23 19 36	+76 25	330.8	7.06	1.1	...	79.75
445	H. V. E.	Anon.	23 20	—22 3	51.7	7.	1.0	...	79.90
446	Σ 3014	P. M. 2822	23 21 52	+10 29	277.7	7.75	1.1	7.5 9.5	79.74
447	h 3196	O. Arg. 22868	23 23 37	—21 14	18.8	20.14	2.1	9.0 10.0	80.70
448	h 3197	Anon.	23 23 51	—17 57	307.8	8.33	2.2	8.5 9.5	79.79
449	β 726	Anon.	23 40	—13 25	326.6	0.77	2.1	8.0 10.2	79.77
450	H. V. E. 124	Anon.	23 41	+16 27	86.1	1.38	1.1	8.5 9.0	79.74

Number.	Double Star.	Name.	Mean R. A. 1880.	Mean Dec. 1880.	Position Angle.	Distance.	Weights.	Magnitudes.	Epoch 1800+
			h. m. s.	° /	°	//			
451	Σ 3040	P. M. 2852	23 42 0	+ 9 29	216.0	4.20	1.1	8.5 8.5	79.74
452	Σ 3045	P. M. 2856	23 48 17	+ 1 48	257.1	1.79	1.1	8.0 9.0	79.74
453	Σ 3046	L. 46916	23 50 14	—10 10	244.5	3.18	1.1	...	79.75
454	Weisse	W xxiii 1071	23 53 42	+ 1 12	88.4	1.85	2.2	8.5 9.0	79.74
455	Σ 3052	P. M. 2864	23 56 46	+70 41	6.8	33.95	1.1	...	79.75

Stone, Ormond

Micrometrical measurements of 455 double stars observed with the 11 inch
refractor during the year ending septembr 1, 1880

Cincinnati 1882

Eph.astr. 37 f-1/8

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